

# MIND

## A QUARTERLY REVIEW

OF

## PSYCHOLOGY AND PHILOSOPHY.

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I.—GEORGE CROOM ROBERTSON.

By A. BAIN.

GEORGE CROOM ROBERTSON was born in Aberdeen on 10th March, 1842. His father, Charles Robertson, is still living. Two elder brothers, Charles and John, obtained admission to the Indian Civil Service in the earliest years of the competitive appointments. The eldest is now retired from the service, and is one of his brother's executors; the second died in India. A younger brother, Alexander, is Librarian of the Aberdeen Public Library.

During the earliest years of infancy, George was constitutionally delicate, and, partly on this account, and partly not to stimulate a brain that already gave signs of unusual activity, he did not commence his education till he was six years of age. He was sent first to a dame's school. He mastered the alphabet and learned to read in an astonishingly short time. After a few weeks of this elementary training, he was transferred to the school maintained by the Incorporated Trades, then under the charge of Mr. Roger, a teacher of some note in his day and a fine specimen of the schoolmaster of the olden type, being as thorough and exact a teacher as he was a strict disciplinarian. The subjects taught were reading, writing, arithmetic, geography, English composition, and Bible knowledge under the guidance of the Shorter Catechism.

Having spent four years under this regime, he went on, at the age of eleven, to the Grammar School,—where for the first three years of his course he was under the tuition of Mr. John Brebner, now Superintendent of Education in the Orange Free State, South Africa. During his fourth year, he was taught by the rector, Mr. Thomas W. Evans. At the Grammar School, the principal topic was Latin, to which were added English (chiefly history) and the elements of Greek. George proved so apt a pupil that, not only did he carry off prizes (some of them firsts) at the several annual examinations, but, at the end of the fourth year, while there was still a year of the usual curriculum to run, gained by competition the second bursary at Marischal College and University, which, accordingly, he entered as a student in November, 1857. The first winter was occupied with Greek, under Prof. R. J. Brown, then an elderly man but a not inefficient teacher; Latin, under Robert Maclure, a man of a fair schoolmaster type, with the genius of translation. At the end of the session, Robertson carried off the second prize in Greek, and stood eighth in Latin. Second year—Higher Classes in Greek and Latin; Mathematics, under Dr. John Cruickshank, a teacher of the first order; and Natural History, under James Nicol, the well-known Geologist. At the end, his prizes were—Greek, first; Latin, fourth; Mathematics, eighth; Natural History, fourth. Third winter—Senior Mathematics; Natural Philosophy, under James Clerk Maxwell, and a voluntary extra class in Greek. At the close he stood—Mathematics, seventh; Natural Philosophy, twelfth; Greek, first.

At this point occurred the great revolution in the Aberdeen colleges, by which they lost their individuality and were transformed into one institution—the United University of Aberdeen. As there were duplicate professors in all the Arts subjects, the elder of the pair was superannuated and the work carried on by the younger. The winter session, 1860-61, was the first under the new system, with this qualification, that students who had commenced their courses in the separate colleges were allowed to finish under the regulations previously in force in each. In Robertson's case, all that remained obligatory was to attend the Moral Philosophy Class of Professor Martin, the former Marischal College Professor, now retained in the United University. The new programme of subjects included, for the first time in Aberdeen, a separate chair of Logic, attendance on which was to be compulsory only on students now entering the United University. Nevertheless, the class was actually formed,

although attendance could not yet be made obligatory. Robertson attended it voluntarily; and this was the first occasion of my coming into contact with him. He took a high place in the examinations, and at the same time distinguished himself in the class of Professor Martin. He took the M.A. degree with highest honours, in April, 1861; his leading subjects being Classics and Philosophy.

In October of the same year, there were instituted the Ferguson Scholarships, value £100 a year for two years, open to graduates of all the four Scotch Universities. One of the two was for Classics and Mental Philosophy combined. Robertson competed for this and was successful. My more particular intimacy with him commenced in the months of his preparation for the competition. The examiner in Philosophy was Dr. McCosh, then Professor in Belfast. It was a condition of the scholarship that the successful candidate should for two years pursue a course of study under the direction of the Trust; and Professor McCosh was appointed to give the requisite directions in this instance. Robertson at once availed himself of the fund at his disposal to pursue his studies on a very wide scale. The winter of 1861-2 was spent by him in London, where he attended selected classes in University College; one being Professor Masson's senior class of English Literature, in which he gained the second prize. He also attended Malden's Senior Greek, and the Chemistry class of Professor Williamson.

In July, 1862, he proceeded to Germany, his first resort being Heidelberg, where he staid eight weeks; his principal occupation being mastering German. The two distinguished names of Helmholtz and Wundt were then associated with the University, the subject of their teaching being physiology. Whether he availed himself of their teaching is not apparent. It was to Berlin that he looked for the fullest scope to his curiosity in the wide domain of philosophical and other learning. He reached the German capital on the 24th of September, and remained till the latter end of March—a period of five months, which included the winter *semestre* at the University. He attended two classes of Trendelenburg—one in Psychology, four hours a week; one on the Metaphysics of Aristotle, two hours a week; Du Bois Reymond, Physiology, five hours a week; Althaus on Hegel, one hour a week; Bona Meyer on Kant, two hours a week. He paid frequent visits to Dorner, and afterwards kept up a friendly correspondence with him and with Trendelenburg. He also saw

Lepsius at his house, and, on leaving, was presented by him with a copy of his *Royal Dynasties of Egypt*. He maintained at the same time a sedulous course of reading, devoting himself more especially to Kant.

Leaving Berlin, he made a tour in Eastern Germany on his way to Göttingen, which he reached on the 17th of April, 1863, remaining there two months. He attended Lotze on Metaphysics and Rudolf Wagner on Physiology. With both these he had subsequent correspondence, and obtained from Wagner a letter of introduction to Broca in Paris, to which he now directed his course. He arrived on the 24th of June, and remained till the 10th of September—a very busy time, but details are wanting. He was recalled to Aberdeen by the intimation of a vacancy in the Examiner-ship in Philosophy, which he failed to obtain. He now remained at home, devoting himself to philosophical study. It was during the year following his arrival that I obtained his assistance in revising *The Senses and the Intellect* for a second edition. He elaborated a number of valuable notes from his German studies, such as the addition made to the handling of the muscular sense. Also for *The Emotions and the Will* he contributed the classifications of the Feelings prevalent in Germany, those of Kant, Herbart, and their followers; and in other ways aided in the revision. After bringing out the second edition of the two volumes, the *Senses* and the *Emotions*, I was occupied for some time in preparing a manual of Rhetoric. For this he compiled the classification of the SPECIES OF POETRY and VERSIFICATION. He, likewise, co-operated with me in making a search in Aristotle's *Rhetoric* and Quintilian's *Institutes*. The result, however, was disappointing; extremely little could be discovered in either for adaptation to a modern manual. In September, 1864, he was appointed teaching assistant to Prof. Geddes, and shared with him the work of his Greek classes. He performed the same duty for session 1865-66. The remuneration was £100 a year, and no duty was required during the seven months' vacation. He was able, therefore, to devote himself largely to philosophical work. In 1864, he wrote an article on German Philosophy for the *British and Foreign Evangelical Review*, which appeared in the July number. He also wrote an article on Kant and Swedenborg in *Macmillan*, for May, the same year.

In the summer of 1866, a vacancy occurred in the Chair of Mental Philosophy and Logic in University College, London. After an abortive attempt on the Chair of Philosophy in Owen's College, Manchester, Robertson became a candidate



for this vacancy. His chief rival was Dr. James Martineau, whose cause was espoused with great energy by one section of the Council, while another section, under Grote's leadership, favoured Robertson. The leading incidents of the struggle are given with official exactness by himself in his life of Grote in the *Dictionary of National Biography*. The election took place in December, and he opened his class in January, 1867.

His residence henceforth was London.

Before he left Aberdeen, I obtained still further assistance from him towards the Manual of Ethics forming part of *Mental and Moral Science*. His contributions were—The Neo-Platonists, The Scholastic Ethics, Hobbes, Cumberland, Cudworth, Kant, Cousin, and Jouffroy. He had no further hand in the Manual except in revising some portions of the proofs.

Not long after being appointed to University College, he conceived the project of a work on Hobbes, for which Grote gave him every encouragement, and wrote to the Duke of Devonshire to procure for him access to the MSS. preserved in the family seats. As commonly happens, this design proved more laborious and protracted than was at first imagined. In addition to the labour that might naturally be counted upon, an unexpected difficulty was encountered in connexion with Hobbes's mathematical writings. It seems that in Molesworth's edition these were very carelessly edited. In order to do justice to the hot and lengthened controversy between Hobbes and Wallis, he had, at considerable pains, to resuscitate his mathematical knowledge and to trace out the sophistical reasonings of Hobbes through all the disguises that his ingenuity enabled him to put on.

One portion of his researches on the biographical part appeared in the *Encyclopædia Britannica*, and the completing section of the biography, together with a survey of the writings, came out in the volume in Blackwood's Philosophical Classics. Although this work was not executed on the scale originally projected, it preserved the most important part of his labours, and is duly appreciated by students of philosophy. His enlarged purpose would have included more copious reference to the great contemporaries and precursors of Hobbes, whom he had studied with no less care, and to whom he might have done justice in other forms had he been longer spared.

For his elementary lectures at the College he prepared, with all due painstaking, courses of Logic, deductive and inductive, systematic Psychology, and Ethical Theory. All

through his career, his attention was nearly equally divided between the elaboration of philosophical doctrines according to their most advanced treatment, and the history of philosophy both ancient and modern. The summer courses at University College, which were adapted to the requirements of the M.A. degree at the University of London, generally took him into fresh ground—the ancients and the moderns alternately—and were the occasion of a special study of the original authorities. His accumulated stores of historical material were thus very great, as his publications from time to time made manifest. A few more years of active vigour would have enabled him to leave a monument of the history of philosophy second to none. His doctrinal clearness was a notable and pervading characteristic of all his expositions of foregone thinkers.

He gave some carefully prepared popular lectures at Manchester, Newcastle, and the Royal Institution, London. One subject was "The Senses"; another "Kant," on whom he gave a course of four lectures at the Royal Institution in 1874. His introductory lecture at the College for October, 1868, appeared in the *Contemporary Review*. Other topics of popular lecturing were "The Characteristics of English Philosophy," "The History of Philosophy, as preparation for Descartes, and Locke". He gave for several years the philosophical course to the College of Preceptors.

From 1868 to 1873, and again from 1883 to 1888, he was Examiner in Philosophy in the University of London. His examination papers are sufficient proof of his efforts to do justice both to the subjects and to the fair expectations of candidates. He also acted as Examiner in the University of Aberdeen from 1869 to 1872, and from 1878 to 1881. He examined for the Moral Science Tripos, Cambridge, in 1877-78, and for the Victoria University, Manchester, as one of the original staff.

He was engaged by Dr. Findlater, editor of *Chambers's Encyclopædia*, to furnish contributions to that work. When the Messrs. Black projected their new edition of the *Encyclopædia Britannica*, they invited Findlater to become their editor. He declined the task, and suggested a choice between Thomas Spencer Baynes and Robertson. When Baynes entered on the work, he engaged Robertson as a contributor in Philosophy. The articles actually written by him were Abelard, Analogy, Analysis, Association, Axiom, Hobbes. Baynes had also bespoken from him the article Psychology; which he undertook, intending it to be on historical lines. When the time came near, he found

himself unequal to the effort and recommended James Ward in his stead, a fortunate arrangement as it turned out.

On the death of Grote in 1871, he had the principal share in editing the Posthumous Work on *Aristotle*, which occupied him the autumn and winter of that year. From the distinctness of the MS., this was in one respect not a difficult task, although involving a considerable expenditure of time in revision. What chiefly made it toilsome and anxious was a want of exactness on Grote's part, through some defect of vision, in entering the numerical references to the text. Every one of these had to be carefully verified from the originals. The result was a masterpiece of correct editing; and the work as thus brought out will deserve to be ranked as an *editio princeps* of Grote's monograph on the Stagirite.

The death of Grote brought out the fact that he had left to University College a sum of £6000 as an endowment to the philosophy chair. Mrs. Grote, who was entitled to the life interest, surrendered the amount in 1875, two years before her death. In the year of the publication of *Aristotle*, 1872, Robertson married Caroline Anna Crompton, daughter of Justice Crompton. She was in every sense a helpmeet, having the same views on the higher questions of life, and being an earnest labourer in the public questions that he also had at heart. She was likewise of service in his official work, when his strength became barely equal to its routine.

Robertson was a member of the Metaphysical Society of London, which flourished for several years and drew together a remarkable mixed assemblage of philosophers, politicians, and ecclesiastics. He contributed a paper on the 13th of May, 1873, on "The Action of so-called Motives". This paper was reprinted in *MIND*, vol. vii., p. 567, and is one of our best handlings of the Free Will question on the basis of a critical examination of the verbal improprieties that obscure the issue.

In 1880, when I resigned the Logic Chair in Aberdeen, he was by general concurrence my destined successor. So much was this felt by aspirants to the office, that, until he declared his resolution on the subject, no other candidate entered the lists. Only after he made up his mind to remain in London was there an open competition.

Following the lead of John Stuart Mill, he threw himself zealously into the movement in behalf of women, and was for some years an active member of the only committee for women's suffrage whereto Mill ever gave his name as President. Although in the winter of 1877-8 he, with several other members of that committee, withdrew from

the movement, he never ceased to watch its varying fortunes with interest. Later on, he promoted the introduction of women into the Colleges, and saw the operation of mixed classes, as it originated in University College and was gradually extended into other educational institutions. In his own class, female students were latterly in the majority.

Twelve years before his death, his fatal malady began to show itself. On discovering the serious nature of the attack—calculus in the kidney,—he set himself to work to parry its advances by every form of precaution and self-denial that his skilled advisers and his own experience could suggest; being aided by the unremitting devotion of his wife. How such a malady could have got possession of him at the age of thirty-eight, it is needless to speculate. This much we can pronounce, after the event, that the strain of his intellectual application from early years was excessive. His persistent labours were aggravated by a fervour of manner which, though raising his value as a public teacher, involved a nervous expenditure that even a naturally healthy system could not well afford.

During sessions 1883-4, 1886-7, and part of 1887-8, he had to employ substitutes for his teaching work. He had given in his resignation in April, 1888; but the Council declined to accept it, until he should have the relief of another session by means of substitute. He finally resigned on the 7th May, 1892.

He threw himself with the utmost zeal into the business management of the College, first as a member of Senate, and latterly as the Senate's representative on the Council. Not long after his appointment, Grote learned with great satisfaction that he was highly esteemed among his colleagues in the Senate for his judgment and energy in business matters. In the larger sphere of the Council's operations, he promised to make himself extremely serviceable, when his failure in health obliged him to withdraw from being a member. It belongs to some one associated with him in the College to do justice to this part of his career.

In 1874, I broached to him the founding of a Quarterly Journal of Philosophy; explaining my notions as to its drift, and asking his opinion of the project. My desire was that he should be editor in the fullest sense of the word; and, on that condition, I undertook the publishing risks. After full consideration, he approved of the design, and accepted the editorship on the terms proposed to him. The subsequent steps necessarily were to obtain the concurrence and

approbation of active workers in the field. I first approached Mr. Herbert Spencer, and found him cordial in favour of the scheme. I next saw Messrs. Venn and Sidgwick in Cambridge, and obtained their full concurrence and promise of support. Other parties were seen by Robertson, or corresponded with, both in England and in Scotland. The amount of encouragement was such as to decide us in organizing the work for speedy publication. It was at first thought that it might be brought out in the course of the following year, 1875; but as it could not be ready in the beginning of the year, it was finally arranged that the first number should appear in January, 1876. Robertson bore the brunt of the requisite preparations for the start; settling the plan and arrangement of the numbers, procuring the requisite pledges of articles in advance, and drafting the programme. It was his happy inspiration that gave the title, which commended itself at once to every one.

Our earliest success was the series of papers on Philosophy in the Universities. We had the good fortune to lead off with Mark Pattison on Oxford, and to secure admirable representatives for the others in succession; Robertson himself supplying the account of the University of London. Another matter that we had set our hearts upon we did not succeed in,—*viz.*, to set going a series of discussions on the conduct of Examinations in Philosophy. Perhaps, either of ourselves ought to have broken ground; but, as we did not do so, many other contributors naturally have felt shy at an operation involving criticism of one another's published examination papers. Nevertheless, the subject is one pre-eminently suited for a free interchange of views. The enormous number of questions set every year in the department of philosophy, in connexion with the conferring of degrees and otherwise, by exhausting leading questions tempts examiners to select out-of-the-way and recondite points which do no justice to the candidate's natural course of study; an evil that ample discussion might be able to remedy.

It was of course a prime object of the journal to keep the English reader *au courant* with foreign publications in the philosophical field—both set treatises and periodicals. In this last region, most important aid was given at the outset by Professor Flint, of St. Andrews, which he was obliged to discontinue on being appointed to the Theology Chair in Edinburgh.

The editor spared no pains to procure contributions of this nature, and took upon himself a large part of the

burden of supplying the desideratum. Indeed, in every department of the work of the journal, it is unnecessary to say that he had always the lion's share. Now that he is gone, it is a satisfaction to think that, besides contributing largely to the review of novelties from every corner, and expounding the great historical names of the past, he communicated his most advanced reflexions upon many leading questions in psychology, philosophy, and logic. It is perhaps unnecessary for me to say more, considering that the result is accessible, and that the collective body of contributors have recently given expression to their estimate of his merits. It would, however, be an omission on my part, not to express the deliberate opinion formed on sixteen years' experience, that I regarded him as, in every point of view, a model editor.

I am saved from much that would be necessary to do justice to this sketch by the publication in the *Spectator* of a notice by Robertson's most intimate friend, Mr. Leslie Stephen. In point of exactness of appreciation and felicity of statement, it would be vain in any one to rival the delineation thus afforded. The readers of MIND cannot but be grateful for its reproduction in full.

"I hope that you will permit me to say a few words about the late Professor Croom Robertson. I had the great happiness of an intimate acquaintance with him during the later years of his life, and can mention some facts which ought, I think, to be known to all who may have been interested in his work. Every serious student of philosophy is aware that Professor Robertson was an accomplished metaphysician and psychologist. I do not suppose that there are more than two or three living Englishmen whose knowledge of those subjects is comparable to his for range and accuracy. He had given up his whole life and energy to such studies from very early years, and whatever he did, he did thoroughly. My own knowledge only enabled me to appreciate his acquirements within a comparatively small circle; but whenever I applied to him for advice or information, I was surprised afresh by the fulness of his knowledge. He had always considered for himself any question that I proposed to him, and knew what was to be found about it in previous literature. My own experience was confirmed by those who were better judges than I could be. It was impossible to consult him without being struck by his command both of the history of past speculation and of the latest utterances of modern thinkers. His judgments,

whether one accepted them or not, were at least those of a powerful, candid, patient, and richly stored intellect. He has not, indeed, left much behind him to justify an estimate which will, I think, be accepted by all who knew him. His excellent monograph upon Hobbes, and a few articles, chiefly critical, in *MIND*, are, I fear, all that remains to give any hints of his capacity. For this want of productiveness there were, unfortunately, amply sufficient reasons. Robertson was, in the first place, conscientious almost to excess as a worker. He could not bear to leave undone anything which was necessary to secure the utmost possible precision. He would not write till he had considered the matter in hand from every possible point of view, and read everything at all relevant to his purpose. As editor of *MIND* he expended an amount of thought and labour upon the revision of articles which surprised any one accustomed to more rough-and-ready methods of editing. Besides correcting misprints or inaccuracies of language, he would consider the writer's argument carefully, point out weak places, and discuss desirable emendations as patiently as the most industrious tutor correcting the exercises of a promising pupil. Contributors were sometimes surprised to find that their work was thought deserving of such elaborate examination; and it often seemed to me that he could have written a new article with less trouble than it took him to put into satisfactory shape one already written, with which, after all, perhaps, he did not agree. He never reviewed a book without thoroughly making himself master of its contents. He applied, as I have reason to believe, the same amount of conscientious labour to the discharge of his duties as Professor. His work in the two capacities absorbed, therefore, a great proportion of his disposable energy. So conscientious a worker was naturally slow in original production. He would not slur over any difficulty in haste to reach a conclusion. Robertson, indeed, like most of us, had some very definite opinions upon disputed questions, and belonged decidedly to what is roughly called the empirical school. But, whatever his views, he was always anxious to know and to consider fairly anything that could be said against them. Had he ever been able to give a full exposition of his philosophical doctrines, the last accusation that could ever have been brought against him would have been that of hasty dogmatism. He might have failed to appreciate the opposite view; but the failure would not have been due to any want of desire to understand it thoroughly. He was always anxious that



MIND should contain a full expression of all shades of opinion. Whether he succeeded in this is another question. An editor can open his doors, but he cannot compel every one to enter. I can only say, from my own knowledge, that he did his best to secure the co-operation of the men from whose views he most decidedly dissented.

"There was, however, a cause for want of productiveness more melancholy and more sufficient than those of which I have spoken. When I first knew Robertson, he told me that he was preparing a book upon Hobbes. It would have included an estimate of the whole philosophical movement of the seventeenth century. He had gone into all the preparatory studies with his usual thoroughness. He had examined the papers preserved at Chatsworth; and had at his fingers' ends all the details of the curious and obscure controversies in which Hobbes was engaged with the mathematicians as well as with the philosophers of his time. When I wrote for the *Dictionary of National Biography* a life of Hobbes, which was in substance merely a condensation of Robertson's monograph, supervised by Robertson himself, I was astonished by his close acquaintance with all the minutiae of the literary and personal history of the old philosopher. Unfortunately that monograph was itself only the condensation of knowledge acquired with a view to his larger work. He was obliged to abandon the original scheme by the first appearance of a cruel disease from which he was ever afterwards a sufferer. He had to submit to painful operations, which severely tried his strength. Though temporary relief might be obtained, he lived under the constant fear of renewed attacks, and was forced to observe the strictest regulations for the sake of his health. It was not surprising that his labours took up all his strength; but, on the contrary, surprising that he had strength enough to do what he did. Seldom free from actual pain, or, at least, discomfort, and never free from harrowing anxiety as to future suffering, he struggled on, doing his duty with the old conscientious thoroughness. He was forced more than once to seek the help of colleagues and friends, always, I need not say, cheerfully given; but he did all that man could do with a really heroic patience. I have sat with him when he was still in bed from the effects of a painful operation, and in his periods of comparative ease. He was always the same—cheerful, often in high spirits; delighting in talk of all kinds; keenly interested in all political and social questions, as well as in his more special studies, and yet by no means averse to mere harmless gossip: while always

manifesting a most affectionate zeal on behalf of his personal friends, and of his own and his wife's relations. A man so tormented might have been pardoned for occasional irritability. I will not say that Robertson never showed such a weakness, but I can say conscientiously that I have never known a man in perfect health and comfort who showed it less. On the very rare occasions in which a little friction occurred between him and some of his acquaintances, I was especially struck by his extreme anxiety to say and do nothing which was not absolutely necessary in self-defence, and to guard against being hurried into unfairness by any loss of temper or personal sensibility. I shall never know a juster or fairer-minded man. I always looked forward with pleasure to an interview with him, sure to return on better terms with men and things, with quickened interest on important questions, and with the refreshing sense that I had been in contact with a man of vigorous understanding, and utterly incapable of any mean or unworthy prejudice.

"During Robertson's severe trials, his wife's society had been an inestimable support. Of her, I will only say that she was a worthy companion in a heroic life, that she soothed his sorrows, shared all his interests, and did all that could be done to secure his happiness. Recent losses in her family and his own had inflicted wounds, taken with the usual courage. In the early part of this year, a heavier blow was to come. Mrs. Robertson was pronounced to be suffering from a fatal disease, of which there had, indeed, for some time previously been ominous symptoms. She died on 29th May last, patient and courageous to the end, having in her last illness made every possible arrangement for her husband's future life. Robertson bore the heaviest sorrow that can befall a man in a spirit of quiet heroism, of which, to speak fittingly, one should use the language rather of reverence than of admiration. He had resigned his editorship and his professorship, steps which his wife had seen to be necessary. He did not, however, abandon his intellectual aspirations. He spent the summer with his relations, and had sufficient power of reaction to be planning employment for his remaining life. I heard from him not long ago that he intended, upon returning to London, to get to work upon Leibnitz, in whose philosophy he had long taken a special interest. But his constitution was more shattered than he knew. There was to be no more work for him. A slight chill brought on an illness which was too much for his remnant of strength. He died peacefully and painlessly on 20th September, within four months of his wife.

"Robertson's friends know what he has been to them. They cannot hope fully to communicate that knowledge to others. But it seems to me hardly fitting that such a man should be taken from us without some attempt to put on record their sense of the noble qualities which are lost to the world. Whatever the limits imposed upon him by the circumstances I have mentioned, few men, if any, have done so much in their generation to promote a serious study of philosophy in England. But those who knew him feel more strongly now the loss of a dear friend. No more true-hearted, affectionate, and modest nature has ever revealed itself to me; and if anything could raise my estimate of the quiet heroism with which he met overpowering troubles, it would be his apparently utter unconsciousness that he was displaying any unusual qualities in his protracted struggle against the most trying afflictions."

## II.—HEDONIC ÆSTHETICS.

By HENRY RUTGERS MARSHALL.

IN articles published in *MIND*, N.S., Nos. 3 and 4, I have endeavoured to show that the hedonic element is all-important in the consideration of Æsthetics; a position which I think holds even if my hypothesis as to the differentiation of Æsthetics from Hedonics be rejected. If this position be correct, and if the view which I uphold as to the psychology of pleasure be a true one, it should be possible to deduce certain general laws of Æsthetic practice from a consideration of the conditions upon which Æsthetic pleasure getting depends. It should also be possible, in some cases at least, to discover the psychological bases upon which have been built the theories which we have found it necessary to reject, although taught by high authorities. If effort in this direction meet with any degree of success we shall gain not only strong corroboration of the hedonic æsthetic theory, but also an effective argument for the Pleasure-Pain theory which I have elsewhere defended.

The hedonic æsthetic theory may be succinctly stated as follows. The beautiful is that which produces effects in us that are (relatively) permanently pleasurable in revival. The ugly, on the contrary, is that which produces effects of (relatively) permanent painfulness in revival. If the production of the Artist is to be effective as an æsthetic object it must bring not only pleasure by its mere presentation, but more than that it must result in the production of pleasurable revivals, which will coalesce with that field of pleasurable revival which in reflexion we call our æsthetic field. The Artist must employ all means which lead to the attainment of immediate pleasures so far as these are compatible with the production of pleasures in revival. He may add much in the way of mere presentative pleasure which may or may not bring us pleasurable effect in revival, and all such added pleasure in presentation is a gain to the work as Art, provided it neither brings pain in revival nor swamps with resulting indifference the revivals which are pleasurable. He may even go further and add elements which give decided painfulness in the direct presentation produced by the examination of the art work, provided the result in revival is on this account made more permanently

pleasurable. Even in the mere examination of art works we must take account of revival fields; for we lose much if we restrict our attention either to the detail or to the mere totality before us. Unless we allow the play of revivals to have full sway our best enjoyment is gone. While pleasures in primary presentation therefore are important, the pleasures of revival are of pre-eminent moment in æsthetic consideration.

To some the separation of the fields of pleasurable "presentation" and revival may seem to involve confusions dangerous for Æsthetic hedonic theory. I think, however, this difficulty disappears entirely if one holds clearly to the implications of the Pleasure-Pain theory which I defend; for under that theory it matters not what is the content which is pleasurable, whether it be of primary "presentation," or of revival, the conditions of the pleasure production must always be the same. Our task, therefore, amounts simply to a consideration of the means to be adopted to produce a pleasure field of relative permanency.

The theory of pleasure-pain which I defend (see MIND, Nos. 63 and 64) may, in psychological terms, read as follows:—

A Content<sup>1</sup> ( $\beta$ ) is pleasurable (or painful) when it is causal to a resultant ( $\gamma$ ) of psychic fullness greater (or less) than that habitually produced by the appearance of the content ( $\alpha$ ) which is causal to its own ( $\beta$ 's) appearance.

[If we express this in physiological language we have: Pleasure is connected with the activity of an organ when the activity involves a giving out of surplus stored force, that is, of more stored force than is necessary for its habitual functioning, under the stimulus received.

Pain is connected with the activity of an organ when that activity involves inherently less outgo than is habitual under the stimulus received.]

Under this theory, in this respect corroborated I think by the argument of my previous articles, two points are clear:—

<sup>1</sup>It will be noted that I use here and elsewhere the word "content" in a limited sense. Strictly speaking the word might be used to cover any appearance in consciousness. Practically, however, it *most commonly* is used to refer to what, but for the awkwardness of the phrase, I would call "contents of limitation," that is, those states which show exclusive differentiation, and which, if we may judge from sensational experience, are determined by exclusive differentiation within the nervous organism. It is thus that I use it. If I were to give it the wider meaning I should be compelled to use the cumbersome phraseology above noted or coin a word for my purpose.

1st. Pain is incompatible with pleasure. With a given content, the conditions which involve pain must be absent if the conditions which involve pleasure are present.

2nd. There is a field of non-pleasure which is also not painful, *viz.*: the so-called field of indifference, which, while theoretically extremely narrow, is practically wide in extent.

It is evident that both of these fields are to be avoided before we can reach pleasure with any given set of contents. The field of pain must be entirely eliminated unless its occurrence is useful for pleasure production to follow; that of indifference must be suppressed so far as is necessary to avoid the overwhelming of the pleasurable contents by those which do not interest us.

#### PART I. NEGATIVE ÆSTHETIC LAWS.

It is evident from what I have just said that we may treat as the first principle of Æsthetics:—

##### THE EXCLUSION OF PAIN. THE ELIMINATION OF THE UGLY.

In what has preceded we have seen that there are practically two great classes of Pains. 1st. The pains produced by repression of activities, and 2nd. the pains produced by excess of active functioning.

I have already shown, I think, that in all probability the first class must be referred to the second;—active functioning apparently being necessary to pain production of *any kind*. As a matter of experience, however, we find two means by which we may *produce* pain, *viz.*: by the repression of activities and by the hypernormal stimulation of activities. This fact, which doubtless has prevented the earlier recognition of the common basis of all pains, makes the current distinction between the two classes of pain perfectly legitimate for us who are here concerned with methods of pain *production*. We may, therefore, properly divide our first principle into two subsidiary ones. A. The avoidance of repressive pains, and B. the prevention of pains of excessive functioning.

##### A. *The Avoidance of Repressive Pains.*

Repressive pains are caused by the failure in consciousness of a content which would normally have appeared. This may happen as follows: 1st. Where contents habitually arise

in any rhythmical manner in answer to stimuli, repressive pain will be engendered if the stimuli fail to appear at the usual time. 2nd. Repressive pains will appear if contents arise which would normally act as stimulants to a content  $x$ , this content  $x$  failing to appear. 3rd. Where contents often appear in definite relations of succession, repressive pains will be engendered whenever the usual order of their rise is not fulfilled. 4th. It may be noted that the existence of repressive pains is an indication that the content which fails would appear pleasurable if it appeared at all.

[In terms of my physiological hypothesis, these propositions may be stated as follows: The inhibition of functioning for which an organ is very fully prepared is the basis of the pains of repression. 1st. Organs which habitually act in any sort of rhythmical manner attain a normal capacity for action at the moment of the habitual rhythmic return of the stimulus. If this stimulus be inhibited we shall have the conditions of repressive pain. 2nd. Again, if by any means the capacity for act on of a given organ be brought to a maximum and the stimuli to the nutrition of the organ be continued, unless action of the organ supervenes, we shall have also the conditions of repressive pains. 3rd. Where organs or groups of organs are often called into activity in definite relations of succession, the nutritive processes, so far as we can see, must become so connected that the activity of the first element of a series will effect the readiness for activity, *i.e.*, the nutritive condition, of the elements which have ordinarily acted in the successive order, so that as they are stimulated in their order they may be able to react effectively to the stimulus received. If this usual order of stimulation be not fulfilled, we shall have again the conditions of repressive pain. 4th. The existence of the repressive pain is a mark of a condition which will bring the fullest pleasure in case the inhibited activity is not too long delayed.]

1. Those repressive pains included in the first class above mentioned are induced only by the production of abnormal conditions, and in a search for means towards pleasure production, such as æsthetics is held to involve, we should expect to find them *naturally* avoided. No one who desired to produce an æsthetic work would think of giving it such form that its appreciation would be dependent upon the holding of one's breath or upon the existence of the mental states which we call hunger or thirst. In comparatively few cases do we deal with more than imperfect rhythms, and these are treated in this connexion under point three.

2. The second point made above in reference to repressive pains would seem to teach that the Artist must in general avoid the stimulation of cravings which cannot be satisfied, the production of desires which are impossible of fulfilment, the suggestion of lines of thoughts which cannot be completed. It is not apparent, at the first glance, that any such canon of practice is recognised by artists or critics. Indeed, on the



contrary, many works of art which we all agree to be of the highest order of excellence are distinctly felt to produce these longings of a dull and indefinite sort. When we come to consider the matter closely, however, we see why no such rule is acknowledged, for it is evident that these pains will be admissible, in a way, provided the observer's thought is thereby turned in new directions of pleasure getting. It will be admitted, I think, that it cannot be the proper aim of an artist to induce *strong* cravings,—*intense* desires,—*fierce* passion. It cannot be forgotten that as long ago as Aristotle the power of artistic work was felt to lie largely in its capacity to *dispel* the passions, to *purify* the objective through the Ideal. Those art works which evidently induce lesser unsatisfiable longings, as of love and pity, or which bring desire for what is unattained or at the moment unattainable, gain their power, it would seem, not through the pain so much as by the flow of sympathetic activity which is produced, or by the impulses which are awakened, or by the revival of old-time thoughts which in their wide reaches are ever delightful. It is in reflexion that we are most powerfully affected by these works of art. As we, in revival, view the mental state which was induced by their study, we feel the sympathetic delights which give them worth, or we see that they brought to us impulses that we hold to be of highest ethical value and which it must always give us the deepest satisfaction to feel that we have possessed. With the bitterest pains of repression, we contemplate the portrait of one whom we have loved but lost; and yet with the pains are aroused so many trains of memory which tell of joy, that we return again and again to the contemplation. We would not give up the pains, for without them were impossible the renewal of other deep delights.

3. The third class of repressive pains, to which we now return, will evidently be of not infrequent occurrence, for they depend upon combinations in varied orders which are easily alterable, and which, on the other hand, are grasped with such difficulty that we cannot expect to find repressive conflicts avoided. We should, therefore, look to find some recognition of occurrence of these pains and some general attempt at their avoidance in æsthetic theory and practice. It is these pains which make up the very usual form of Ugliness which is determined by the combinational effect of many disappointments of expectancy,<sup>1</sup> each painful, in too small a degree, indeed, to be emphatically presented, but for

<sup>1</sup> Cf. Hutcheson.

all that, helping to make up an aggregate of undefinable but emphatic disagreeableness. In one of his interesting and suggestive studies<sup>1</sup> Schiller tells us that "beauty can tolerate nothing abrupt nor violent". In other words, if an object is to appear beautiful to us it must not bring to us shocks of any kind. The lines — the forms — the colours — the sounds, which we find in nature, resultant as they are from the influence of cosmic forces in conjunction with growth, bring to us certain arrangements of stimuli, which, though complex beyond our powers of analysis, must mould our nervous system into preparation for the reception of stimuli in corresponding orders and arrangements; and this in psychological terms means the production of a tendency to the rise of certain special contents in special orders and relations to one another. If, then, nature presents to us, as she does with *relative infrequency*, objects which bring stimuli in relations contrary to those in accord with which our systems have been moulded, we should expect to note just such shocks of repressive pain as nature's monsters produce in us, quite apart from the active pains (of aversion or fear, *e.g.*) which they may superinduce. In our productive work, it clearly would be indicative of an intelligence far above that which we possess if we did not find ourselves too often bringing about combinations of stimuli which violate the order that nature has impressed upon us.<sup>2</sup>

4. While speaking of these pains of repression which lead to pleasures, we may appropriately bring forward the fourth point made above. If the pain of craving can finally be replaced by the pleasures of its satisfaction it is apparent that the pains of repression within limits may be encouraged by art workers, for the very sake of the after effects of pleasure to be obtained. The pains of repressed activity indicate, as we have seen, an organic condition of full preparedness, so that if action supervenes it will bring the highest degree of pleasure that can be induced by the organ's activity. These repression pains may, therefore, be taken as the index of pleasure capacity, and we may expect them within limits to be used by the artist because thereby he will gain certainty that the pleasure limits have been attained, and that a full pleasure will accompany the action

<sup>1</sup> *Zerstreute Beobachtungen*, p. 86.

<sup>2</sup> The reader will understand from my previous articles how it is possible for a person to gain "an acquired taste" (an acquired pleasure capacity) which will in the end make these unnatural forms not unpleasant and even enjoyable through appreciation of other values than those which are natural.

which is to follow the repressal. Dependent as such transformations from pain to pleasure are upon the succession of psychic states, we should look for notable practical exemplifications of them in arts which deal especially with phenomena of succession; in music and in literature. In music we have example in the delayed resolution of a chord which is allowable even to the point of painfulness. In literary work we have example in those every-day complications of plot which delay the consummation longed for and finally reached. Schiller, speaking of Tragedy, tells us that "the highest degree of Moral Pleasure cannot make itself felt except in conflict. It follows hence that the highest degree of pleasure must always be accompanied by pain." The principle is one of wide import in all branches of Æsthetics, and here I think we have its basis; for, as we have seen, organic rest is a most important condition of pleasure production. How are we to gain knowledge that we have reached full capacity for organic functioning unless we wait on the pain which comes after the absorption of energy has reached its maximum? We have here also the psychologic basis of many a theory of the relation of the Ugly to the Beautiful and of the value of the presentation of Ugliness as an element in the Beautiful; as instances of which we may note Schlegel's dictum that the principle of modern art can only be found if Beauty and the characteristic Ugly be indissolubly connected; and Rosenkranz's statement of the Aristotelian notion that the artistic genius finds the highest triumph of his art where he represents the Ugly objectified, and Beauty all-powerful through triumph over evil.

Illustrations here crowd upon us. All of nature's lines are affected by the power of gravitation. It seems clear to me that the relative grace of the suspension bridge and of the cantilever truss is principally determined by the fact that the catenary curve in the one case presents to us nature's pendent form, while the strutted extensions of the cantilever bring to us other lines than those in accord with which she has educated us. As one's eye follows the lines of the truss, natural organic combinations bring preparation for action in certain directions. But the stimuli to these activities fail when the abrupt and rigid lines break off in directions which nature has never given us; the shocks of repressive pain which result produce that sense of discomfort which we express by calling the work ugly. One who stands by the brink of Niagara, with its ever-flowing lesson in the curves of gravity, cannot help feeling strongly that the lines of the suspension bridges are in satisfactory harmony with the scene, but that the cantilever bridge makes a blot upon the landscape as unfortunate as the rigid forms of the factories built upon the river's bank. It seems to me that the beauty of the rocket is also largely determined by the submission of its movement

to the laws of gravity. The same principle may be recognised in visible forms quite apart from their contour lines. The relations of the parts in the human figure vary in an indefinite number of small ways—but any marked disproportion of parts at once gives us the shock of ugliness. It is comparatively seldom that nature brings these positive shocks, although often the men and women we meet show little of beauty. In the creative representations of man, however, nothing is easier than to produce such misemphasis of relations, and such unnaturalness that ugliness in whole or in part is induced. Even more delicate are the relations of colours. "Is it not strange," a lover of flowers once said to me, "that nature does not give ugly combinations of flowers when it is so easy for us to combine them in an unsatisfactory manner?" This observation teaches the doctrine here discussed. Nature through the influence of the pre-historic past has been our teacher, and to nature's colourings we must go to learn what combinations to make use of in our work of re-arrangement, and, if we may so speak, of re-creation. If we break away too far from her guidance we have our punishment in the shock of perceived ugliness. When we turn to Sound relations we recognise the disagreeableness of sudden changes from the habitual movements in music if, for example, some unskilled performer strikes an incorrect note in a known progression or if the development of a harmony be broken by an erroneous chord.

Here we find ourselves prepared to step away from nature's teachings to the more complex regions of mental effort which depend upon habits artificially formed, if we may so speak, in the process of development. The principle will be recognised as the same, however, whether the pain be caused by breaks away from habitual combinations produced by nature's wider and racial, or by more narrow and individual, influences. The related forms which our race through many generations of experience has learned to feel to be most satisfactory cannot be lightly disturbed without producing painful distraction. This we all feel in those lines on which practice enables us to judge with discrimination. The mere novice objects to a Gothic window in what purports to be a "classic" building. The more highly educated student at once revolts against a façade of Corinthian detail massed in Doric proportions or with Ionic intercolumniation; and this is due to the fact that he has learned by observation how these special parts have been best related by the long study of successive generations in the past. The work of one who disregards this racial experience brings to the expert a shock which for him makes æsthetic joys impossible. So it is with the purist's judgment in all Art work. Habit here, as in all of life, dominates us, and perhaps the greatest danger which the critical student has to guard against is that of the artificial creation in himself of petty standards which, when shocked, give a sense of ugliness sufficiently predominant to prevent the appreciation of wider beauties. It is worth noting here that one of the greatest obstacles to æsthetic advance is found in this capacity to form artificial standards. We "get used" to forms which are intrinsically bad; gain such habits of thought in relation to them that they shock us no longer, and thus we are led not only to tolerate what can never show us any positive beauty, but even to feel revolt against change produced by the shock which that change induces.

We are here brought to the consideration of certain negative principles of great importance, which in a number of cases we shall find have already been recognised, but erroneously, I think, as positive teachings of the contraries of

those principles which should rightly be emphasised. We are all too ready to fall into logical pitfalls connected with incorrect use of complementary opposites. Experience tells us that we must avoid *not x* if we are to produce a beautiful object; *x* therefore is fixed upon as the basis of Beauty.

It is clear, after what has just been said, that were we to start out from a theoretical basis we should be inclined to hold that our safest course of procedure would be to *imitate nature*; sifting out her especial beauties, or recombining her elements, so that (relatively) permanent pleasure would result for us. In fact it appears that this is what the great mass of our Artists in almost all lines of effort do to-day, and what they always have done; and this observation doubtless led Aristotle to look at Imitation as so important a principle of Art. It is apparent, however, that it is a means to an end merely, and that it is not possible to make it fundamental for all art, as some of Aristotle's followers, upholding the principle by strained interpretations of the meaning of "Imitation," would have us believe he intended to make it. It appears to me that it is a principle of importance rather negatively than positively. It guides us in the direction in which beauty will be found, and far outside of which it cannot be found; but that it gives us a positive basis for the production of Æsthetic result, I think untrue, as must be evident to any one who does not exclude architecture from the realm of Æsthetics as Aristotle apparently did. Other examples of the same illicit procedure and of the consequent misnaming of principles are not wanting, some of which deserve mention.

Freedom from shocks implies avoidance of inharmonious relations, and perhaps it is not surprising that the observation of this should have raised *Harmony* to the dignity of a first principle, notwithstanding that the most cursory examination must show any unprejudiced person that we are fairly enveloped in a world of harmonies, which give us no Æsthetic result at all. So again uselessness, unfitness, abnormal departure from type, must be eliminated if painful shocks are to be avoided, and without such avoidance no effect of beauty can be obtained. From this source, it seems to me, have arisen the doctrines of the relation to the Æsthetic of *Usefulness*,<sup>1</sup> of the importance of *Fitness*,<sup>2</sup> of the necessity of *Conformity to Type*.<sup>3</sup> No egregious departure from our

<sup>1</sup> Confer Buffier, *e.g.*

<sup>2</sup> Sir Joshua Reynolds, *e.g.*

<sup>3</sup> *e.g.*, Sir C. Bell. Ruskin also counts Beauty of Type as a notable category. Compare Leslie Stephen's *Science of Ethics*, p. 76.

typical standards, no marked unfitness in the object presented, nor any emphases of qualities which are hurtfully useless are possible without producing this pain. But it is as far as possible from the truth to hold that departures from normal types within limits are non-æsthetic; on the contrary, it is just such departures which add piquancy to much which we admire. It is equally misleading to argue that the non-useful can not be beautiful, or as is more often the case, to over-estimate the importance of the recognition of the useful in given æsthetic fields. So far as the Useful is a positive principle, it is covered by the principle of the summation of associative pleasures.

An illustration of my contention may be found in that treatment of Gracefulness, adopted by Mr. Herbert Spencer, which makes its delights dependent upon adaptation to ends. Grace without this adaptation is, of course, unattainable, but that is merely a negative description of its field. If his position were correct we should be compelled to grant the quality of gracefulness to a perfectly ordered machine, and to shut out most important elements which have no relation to fitness whatever, the delight which we gain from those flowing curves which our retentiveness pictures for us in and through movements, the sympathetic pleasures which Schiller has so well described as dependent upon "beauty of form under the influence of freedom,"<sup>1</sup> without appearance of the strife and conflict which willed actions entail; and we should be forced to leave out of account many other elements of associative feeling. Perceived Usefulness in like manner has been made the essential point in Architecture. Usefulness truly becomes more important in this than in other arts, not however *per se*, but through the strong emphasis of the painfulness of each useless feature which exists to the detriment of the whole. It is probable that the superior pleasure obtained out of ancient works of architecture is in some degree due to the fact that they have lost their capacity to shock through opposition to the immediate needs. The limitations of human capacity are so great that shocks of this kind are forced upon us in every newly constructed building made to serve some distinct purpose, however great be the skill of the designer. To be sure each *use* may add to the complex pleasures of activities associated with the use, and these associative pleasures will be cut off in disappointment pains, when the lack of this usefulness is noticed, but here again it is the non-æsthetic effect of the non-useful and not the æsthetic effect of the useful which tells, and which forms the basis of the so-called principle. Mr. Spencer also holds, as Emerson held before him, that the useful tends to become beautiful; but so far as this is true it is not because of the usefulness *per se*; it seems much more naturally explicable as one of the phenomena of habit; for, as we have seen, in a great class of cases actions which have become habitual gain for themselves pleasure capacities either directly or associatively. Another point made by Mr. Spencer seems to illustrate our contention. Style he thinks depends upon the reduction of friction to a minimum in the chosen vehicle.<sup>2</sup>

<sup>1</sup> *Armuth und Würde*, p. 17.

<sup>2</sup> Confer also Guyau, *Essais de l'Esth. Contemporaine*.

But surely this is merely a negative principle, a condition preliminary to the use of those satisfactory forms which mark a good style in whatever material the artist works.

Turning in another direction, it appears that the doctrine which makes the Expression of Truth an essential principle of Art has a similar negative basis. Untruth, in all the arts, is a source of great dissatisfaction. This is markedly the case with Architectural forms, where better education teaches the observer the natural action of constructional elements, and creates uneasiness unless there is evidence of their consideration in the building up of the masses. It is natural, therefore, that we find the principle of "Truth" constantly reiterated as an especially valuable dictum of Architectural Æsthetics. Here we may mention the demand for Repose in Architecture and the plastic Arts in general as another negative principle, founded in this case upon our appreciation of nature's law of gravity. Repose *per se* will not bring us æsthetic joy, but without it, in the cases cited, beauty cannot be reached. The building must be felt as stable, the human figure must "stand upon its feet," or be poised in a position it could occupy in nature without continued strain; but these conditions may well be fulfilled without result of æsthetic moment. Let me illustrate this general point once again. Growth is a law of nature. Everywhere around us we see forms which are of marked type indeed, but which present evidences of developing change in non-essentials. Art works which present evidence of such growth gain great power through the sympathetic harmony with nature and with our own developing selves. The evidence of this veri-similitude of life, perhaps unanalysed and not definitely recognised, probably adds much, for example, to the attractiveness of the Gothic Cathedral and emphasises the poetry of the structures of Northern Italy. Musical forms also are especially fertile in producing those living effects. Music which is mechanically produced can never be satisfactory. But surely it is not in evidence that the expression of Growth or of Life can be held to be the fundamental in Æsthetics,<sup>1</sup> as some would have us believe. At the most the effects produced by the representation of these qualities can be but an adjunct to other means of impression; for certain people, however, who become accustomed to look for them, they may be demanded when absent, for the

<sup>1</sup> Confer Guyau, *L'Art sur p. d. v. Sociologique*, p. 75, et al.



purpose of eliminating a painful need, and may thus become for them necessary to æsthetic result without showing proof that they are the essential to æsthetic effect in general. The Unities which Aristotle made so essential in the development of the drama gain their force negatively, for without such unities distractions must be felt from the line of thought in which the poet would guide his hearer. That this is true is shown by the lessened demand felt for the unities of time and place in the drama of modern times; for, through historical study, the grasp of eras has become as common to-day as that of individual lives; and, with us, movements from place to place widely separated are matters of usual occurrence.

We now come to the second division of our principle in

#### B. *The Avoidance of Pains of Excessive Functioning.*<sup>1</sup>

So important is this avoidance that works of art are in all cases developed on lines in which excesses may be shunned with little difficulty. So soon as the work of the artist begins to tire us we must be able to turn away from its consideration. The stimulus given must directly or indirectly be under our control, so that we may grasp the opportunity for enjoyment when, and only when, we are in the mood for the special pleasures involved.<sup>2</sup> There is no more certain manner of destroying our appreciation of any special art work, that is, of making it non-æsthetic for us, than by compelling attention to it when we are weary in the direction of its peculiar stimulus.

As we have seen, a certain class of repressive pains are *naturally* avoided, and with pains of hypernormal activity nature aids us also very materially, for we tend automatically to prevent excess by the shifting of attention. Concentration and permanence of attention upon one subject are certain to become speedily painful; indeed, because of the reflex effort at avoidance, they are, strictly speaking, impossible, except by means of a cultivated habit, and then only through the artifice of "looking around the subject" so to speak—of allowing the various details to be viewed in the mental focus without letting go the primal theme which is held in associative trains. As avoidance of pains of this

<sup>1</sup> These pains, as we have seen in my former discussions, are caused by stimulation to activities for which an organ is not prepared.

<sup>2</sup> Confer Sully, *Possibility of a Science of Æsthetics*. Fechner, *Vor. d. Æs.*, vol. ii. p. 55.

type is comparatively easy and almost automatic, it is natural to find that theoretic consideration has dealt less with them than with those repressive pains not naturally avoided which are the result of unexpectedly encountered pitfalls, only to be missed by much prevision. That excesses must be shunned is taken for granted. This is the principle involved in Aristotle's emphasis of the necessity of adopting a mean between extremes.

Taking the realm of Pain as a whole we may state our principle, in psychological terms, as that of "The Avoidance of the Ugly". It is thus that the artist gains the broad background which he must win before he can realise his ideal of beauty. His results must give many a pleasurable element, and, as we shall presently see, some special points of intense interest, but he cannot hope to make the wide mental field which his work arouses altogether pleasurable; the most that he can hope for is that it shall be devoid of elements of possible painfulness. The importance of the principle will be acknowledged when it is considered that special interest in the work of art as at first presented may very easily blind one to many elements in the work. If these latter are displeasing they will become effective to cast the work out of the realm of æsthetics as soon as the intenser interests pall upon us. All men naturally follow out this maxim, and it is mainly through accumulation of such eliminations of ugliness that our standards of artistic excellence have been reached. On general lines the bad has been sifted out or allowed to fall into the background as time has passed, and the noble and beautiful has been left unaltered because it has been felt too satisfactory to require change.

Most of us are wont thoughtlessly to look back at the Architectural forms of Greece as the creation of her golden age. But it is clear to the student that those splendid achievements embody the thought of many generations, and even of diverse races, rather than that of a special era of a few generations' continuance. Generation after generation had felt the same needs in their worship, had built and rebuilt temples as their inferior materials and workmanship, or the more actively destructive forces of nature, compelled. Each new work had made it possible to eliminate some form which had been displeasing in the last effort, to alter some unsatisfactory surface, to change some deficient shadow depth. In the final results we see the record of untold endeavour towards the attainment of beauty, mainly successful because time and experiment have effected the complete elimination of the ugly. The growth of Gothic forms, of which we have better knowledge, tells the same story of experiment and partial failure; of renewed effort with avoidance of the elements which made the last work unsatisfactory; until we reach the glory of the best Gothic, less

*perfect* than the Greek indeed, as it expressed the demand of a race impelled by less unity of feeling, and as its growth was forced within the relatively short period of perhaps a thousand years. Too great difficulty of applying eliminative experiment may indeed be looked upon as a bar to development. The Egyptians, to whom the expression of permanence seems to have given the greatest satisfaction, built in such ponderous material and so durably that change of form was a matter of far greater difficulty than with the Greeks, whose materials were far less permanent and much more easily worked. This difference doubtless accounts largely for the fact that we find Greece in a relatively short time gaining possession of such a flower of Architectural Art as had failed to spring from the stem that had grown for long ages in the climes of Northern Africa. It is no little comfort to us in these restless times to see how few of our buildings are constructed to last in the future. If, with our changing needs, we have little ability to develop an architectural art, at least our descendants will not fear to sweep the greater part of our work from the face of the earth. We see the main principle enunciated, however, in our own times and in our own homes. Comparatively few of us can fill our homes with objects which remain for us, or for our friends, of permanent beauty. We may be able to have a gem here or there, but that is all. Still we may avoid "shocks," and in that avoidance lies much of the power of a cultivated mind in architect or householder. To this is surely due the beauty which *grows into* the homes of those whose culture is handed down with the building which passes from one generation of refined people to another. The inhabitants learn to brush away the "shocks". The inharmonious lines and forms are covered; the harmonious lines and forms are retained; gradually and unwittingly they mould their surroundings to relations which do not clash. In such an environment the smallest beauties tell.

In looking over other Art fields where the medium of expression has been in less permanent material, it is difficult to realise how much work has been done which has been cast aside because of inferior worth, has been allowed to deteriorate and thus has been lost. It were much more difficult did we not realise that our race is in the main not far removed from those that time has swept away before us, and did we not see this process of production and elimination going on around us to-day. Practically a vast proportion of the pictures preserved in the great galleries of Europe have been eliminated from the *Æsthetic*. We go to these vast treasures to study a few pieces of work; all the others are passed by as if they did not exist. If we could reproduce the sudden barbaric intrusions of the past, it is easy to see that the few precious gems which time has taught us to value supremely would be hurried off to places of safety, while all else might readily be eliminated by vandal destruction or neglect.

It is evident, of course, that the attainment of an unpainful background in itself will not suffice to bring about *Æsthetic* result. Not only must the artist avoid pain in indifference, but before gaining the pleasure field he must move *beyond* this field of indifference. This brings us to our second division, which, however, we may pass over lightly, for indifference may be avoided only in the directions of pain and pleasure. Pain, as we have seen, is also to be avoided by the artist. The attainment of Pleasure is, therefore, the

only means by which we can step away from indifference in a direction that will be not unæsthetic, and we are at once brought to the consideration of the positive field of æsthetics, to which we now turn.

## PART II. POSITIVE ÆSTHETIC LAWS.

The problem before us here is to discover the means necessary to *the production of a pleasure field which shall be relatively permanent*. It will be convenient in our discussion to treat separately (1st) the production of pleasure itself, before considering (2nd) the means used to the attainment of *permanency* of pleasure field.

I. In what has preceded this we have seen that all pleasure is dependent upon the rise into consciousness of contents which are coincidents of action in well-prepared organs; *i.e.*, that pleasure occurs whenever the stimulus affecting an organ occasions the *use of surplus stored force*. From this theory we may make the following deductions: Pleasure arises:—

A. When there appears in consciousness a content which has before appeared but which has been lately absent, because no stimulus to its production has arisen.

B. When a content appears after inhibition of its normal appearance.

C. When a content appears with unusual vividness after normal absence from consciousness.

[In physiological terms these propositions may be stated as follows: Storage of force is attained by rest from activity. The preparation to act effectively involves time; recuperative processes are in the main less rapid than are those involved when action takes place in answer to a stimulus from without. All organs, however, have surplus power which is not brought into activity under normal conditions, but which may be brought into use under hypernormal stimulus with only normal nutritive conditions. It appears, therefore, that the use of stored force may be reached:—

A. By the stimulation of organs, which having been long rested have gained great potential efficiency, so that a stimulus, normal or very little above the normal, will bring fully into action their stored energy.

B. By the artificial nutrition of organs which are to be called into action.

C. By a decided hypernormality of activity for a short time after merely normal rest.]

It is, of course, evident that these methods of pleasure production may be used coincidentally, but it is desirable for us here to treat them in isolation.

The pleasures of rest after labour, or relief from pain, as we have already seen, although really to be considered as a sub-class under the pleasures of activity, are in practice separable from them, because they are reached in practice by distinct methods. Unquestionably use is made of them in the arts which deal with phenomena of succession. No slight pleasure is it that we obtain in music by the introduction of a calm restful movement following upon a train of intense and vigorous passages calling for our active attention. But on the whole these pleasures do not form an element of marked importance in Æsthetic work, especially because they are so dependent upon the existence of and are inseparably connected with anterior pains. We may pass on, therefore, without further examination in this direction.

A. The first point made above gives us the widely recognised æsthetic principle of *Contrast*. Contrast in any region of mental effect involves the presence of contents which have not been in consciousness in the late past.<sup>1</sup>

[This involves the action of organs which have not been functioning lately. Gradations in sense effect or in thought transitions are mental movements which imply the gradual coming into action of the organs which are successively the centres of activity. Contrast eliminates all gradations; it involves the action of organs, which through mere rest have become well prepared for activity, and which, therefore, produce pleasurable activity when stimulated.]

That Contrast is an important æsthetic principle is recognised by all; indeed it is not infrequently over-valued, *e.g.*, by Mr. Herbert Spencer, who calls it an *essential* requisite to all Beauty. But our theory would teach that contrasts are not æsthetic *essentials*, because pleasure can be reached without contrast by mere increase of vividness. Still it must be granted that the principle is of the widest application, and a most available one for the guidance of the Artist. Very strong contrasts, however, must be used with the greatest caution; they give powerful effects, but are rapidly exhaustive and, therefore, must in general be

<sup>1</sup> That Contrast *per se* is always pleasurable may not be granted by some who recall disagreeable "contrasts" of colour for instance; the apparent exceptions, however, are in part explicable as due to connected association with vague painful contents, but in most cases are really not to be called contrasts at all in the sense of my definition, for they cannot be shown to be shiftings to entirely new contents. Confer Rood—"Modern Chromatics"—especially chapters on Contrast and Colour Combinations.

avoided. To this we refer later under the consideration of permanency.

B. The pleasurable appearance of contents after inhibition of their normal occurrence has been already incidentally discussed in considering the repression of activities, and we need give no space here, therefore, to this means of the attainment of a full pleasure field. The principle before us becomes important, however, in another direction. If there arise by suggestion from the expressions of another, trains of thought which are normally connected with other secondary trains, but if by skilful management the arousal of these secondary trains be prevented, then we have a condition of artificial inhibition which will result in pleasure getting whenever the secondary trains are allowed to appear.

[In physiological language this may be spoken of as *artificial nutrition of organs which are to be called into action*; for the normal connexion between the primary and secondary trains implies connexions between the stimuli which bring nutrition to the organs involved in the presentation of the two trains. The temporary inhibition of the secondary trains, therefore, implies a gain of nutrition in the organs of the secondary trains without the use of the energy accumulated.]

Such it seems to me is the process in the delicate play of wit. In what is usually called the "ludicrous" we use this means, although much of the effect in such cases is dependent upon sudden transitions in the lines of ordinary association from mental processes which involve effort to more habitual processes where the same energy will produce greater effects, *i.e.*, hypernormal stimulation.

It is, of course, impossible here to argue this point at length. While other sources of pleasure getting are made use of in various ways together with the action above described, I think it can be shown that this is the characteristic movement in what is usually called the Ludicrous, and that it serves well to harmonise the oppositions of the many thinkers who have attempted analysis of this mental state. Those cases of the Ludicrous which seem to involve little except surprise are explicable on the ground that the surprise involves attention and expectation of important outcome. When the unimportance of the object or action is perceived the relaxation of attention results in the same powerful overflow into the channels of ordinary activity. The easy and marked "step from the sublime to the ridiculous" is also thus explicable.

It cannot be claimed that all such transitions as are above described are ludicrous, for thought trains of discovery and invention are not infrequently of this nature and to them surely the word ludicrous cannot be applied. Introspection seems to tell me, however, that the psychoses in the two cases are very closely allied. We have a tendency under such circumstances to laugh, or at least to smile, under the pleasurable excite-

ment, and we occasionally speak of the resultant as a "happy thought". I am inclined to think that the difference, at first one of degree rather than of kind, has become marked because the more emphatic and fuller state produced in us by what we term the "ludicrous" has become indissolubly connected with what Kant describes as "the sudden transformation of a tense expectation into nothing".

Wit and the ludicrous are seldom separated in practice. The wit, properly speaking, plays around his subject, avoiding the more usual outcome of the train of his thought but leading that of his hearer close to this normal resultant, until, when it may be supposed that all the organs connected with the normal outcome are fully prepared for action, he turns the thought train in the direction which is effective for pleasure. The stimulation of the well-nourished organs, which is thus involved, is followed by the burst of pleasure-giving activity which irradiates the system and expands its surplus energy in the pleasurable exercise of laughter.<sup>1</sup> The wit and he who deals with the ludicrous, however, tread on dangerous ground. The clown perchance may not cause laughter, but may disappoint us so painfully that irritation results. Apart from the danger that the witticism may cut too deep there is the danger that the repressed activity may force itself upon the attention of the hearer before it is designed to appear. In this case the course of thought which is intended to lead up to the latter becomes obstructive, and the result is wearisome: this is exemplified, for instance, in the "flatness" of old jokes. Further, there is the danger that the play around the subject may develop trains of so much interest that the change of thought will produce a shock powerful and painful enough to overbalance the pleasure led up to. We all realise how dangerous it is to treat lightly subjects which may be of sacred interest to others.

Our third minor division relates to:—

C. Pleasures which accompany vividness of presentation.

[In physiological terms these pleasures may be described as due to hypernormal activity of a normally efficient organ.]

Vividness of impression is a well-recognised means of producing æsthetic result in its cruder forms. Barbaric art shows this distinctly, and the art of the masses, even in our

<sup>1</sup> The exercises of laughter are pleasurable in such cases because they involve the action of rested organs. The more serious aspect of things from which we turn to the perception of the ludicrous involves partial if not total quiescence in all those organs which are notably active when we laugh. Laughter is not always pleasurable, as all know who attempt to force it.



day, makes use of the same means. Vivid colouring and contrasts, startling forms and combinations, vivacious rhythms, loudness of sound as in martial music, all are common tools of the popular artist. But we here tread on ground dangerous to permanency—for hypernormal activity, as we have seen, is the basis of pain as well as of pleasure, and pleasure which is determined by this alone must be of a very ephemeral character. So in the higher art this crude means of producing æsthetic effect is not prominent. In a more delicate form, however, we do find it of service to higher art in the stimulation by varied means of the same activities at the same time. The principle here involved is that of "The Unification of the Manifold," which is widely recognised as of the highest importance in Æsthetics.

[In hedonic language it may be stated thus: Two or more elements act simultaneously as stimuli to the activity of some new element, the resulting psychosis being one in which the original elements stand in the background, the focus of the field consisting of this new element which, being stimulated from more than one source, appears in a pleasurable condition of hypernormality.]

If this principle were not over-emphasised by high authorities<sup>1</sup> it would be unnecessary perhaps to call attention to the fact that, although wide in its bearings, it cannot be universal as the cause of all beauty. Fechner, who certainly makes as much of the Unity of the Manifold as is legitimate, acknowledges this; see p. 42 of his *Vorschule*, where he gives several instances which it is not possible to give this explanation. We are evidently surrounded by appearances of unity in manifoldness that do not impress us with sufficient pleasurable to give the objects producing them the quality of beauty, the slight pleasure which they give being overwhelmed. On the other hand, many beautiful objects appeal to us in which we can trace no distinct element of this unification. Æsthetic effect, indeed, as we shall see, implies more than the vague gentle pleasure which the Unity of the Manifold, as it usually appears, can produce.

I think it must be granted that the mass of æsthetic pleasures is reached by slightly vivid presentations in varied directions, but, as we have so often noted, it is vividness also which leads to Pain.

<sup>1</sup> Confer, e.g., Lotze, *Microcosmus*, bk. viii. chap. v., "As we derive æsthetic satisfaction only from a plurality which may be apprehended as a clearly discerned unity".

[If hypernormal activity be continued after the force stored up in an organ has been exhausted, pain results; hence if this unusual activity be continued for any great length of time, we will have the conditions productive of pain.]

It becomes necessary then for us to consider the means to be adopted to bring about *permanency* of pleasure field, and this brings us to the second division proposed in the beginning of this part.

II. Our problem here is to define the conditions which make possible the attainment of permanence of pleasure (that is, permanence of hypernormal activity in well-prepared organs).

We have already seen (1st) that absence of a content from consciousness for an unusual time suffices to make it pleasurable when it appears; also (2nd) that vividness of impression is an important source of pleasure getting; but (3rd) that the avoidance of continuity of vivid presentation of any one set of contents is a necessity if pain is to be avoided.

[In physiological terms: Rest from action before action in a given organ is one of the conditions to pleasure getting from the content which appears with such activity, or else hypernormality of action in the organ; but the avoidance of continuity of hypernormal action in any one set of organs is also a necessity if pleasure be sought; for such continuity uses up all surplus energy and leads directly to the physiological conditions which involve pain production.]

If, then, a permanent pleasure field is to be reached, a focus is important in our field of consciousness (see 2nd above), but it must shift from element to element (see 3rd above), and this shifting involves new means of pleasure getting (see 1st above). In general, therefore, we may say that the conditions of pleasure *permanence* are the shifting of a focus in consciousness over a wide pleasure field. Let us consider each of these divisions more fully, in reverse order.

A. WIDTH OF FIELD. Pleasure in any one direction being essentially ephemeral, the only means by which we are able to insure *permanency* of pleasure is by having open before us wide opportunities to change the content of our thought. As we have already seen, it is first of all essential that the fulness of our complex mental states should be non-painful; it then becomes important to see that many elements of the complex are capable of developing pleasure. This is important not only because we are thus enabled to shift the focus of attention, but especially because a multiplicity of simultaneous effects thus becomes possible. Lotze, as he

views his consciousness, tells us that the æsthetic effect "is notably (but not exclusively) bound to simultaneousness and multiplicity of impression". It is thus that the Artist groups together as large a number of means of pleasurable stimulation as he can combine without conflict. He endeavours to use at the same time arts of ear and of sight and those which depict more directly the activities of men. The difficulty of such wide combination, however, is very great, and he more often deals with narrower fields; but always does he use every device which may draw into the field of suggestion all associative factors which are not inharmonious and which may add one more to the pleasures given. He does not disdain any element, however likely to pall, if he is able to leave our thought free to turn elsewhere as soon as the pleasurable effect is gone. The suggestion of sense pleasures he uses—but avoids the actual sense stimulus under conditions that may lead to excess or bring painful results in revival. He aims to bring into play the imagination which carries one on from height to height in pleasure-giving flight. It is this direction of effort which leads Lessing to call for an incompleteness of detail in the artist's work that the imagination may have room in which to work its expansive effects. We look thus for a fullness of non-fulfilment of exact detail; for an avoidance of strictness of realism—for type portrayal. The artist, moreover, aims to stir up those vague regions of psychic life, the content of which we can scarcely grasp; the regions usually termed Emotional. He produces in his observer an æsthetic horizon which Guyau has interpreted as the essential characteristic of æsthetic pleasure: that "irradiation" which seems to have a centre in some sense impression but which works effects in all mental regions connected with it; effects of so small intensity, of such rapidly shifting content, that there is little of it but the vagueness of an aurora. The artist cannot undervalue even the effects of admiration of his own skill, for though the pleasure gained thus is for a few and perhaps only for his fellow-workers, for them it is not a small pleasure-giving element, and if he holds the admirer by this means but a moment longer, so much the more is his work effective.

Breadth of field without the emphasis of foci implies a widely divided attention which is important. The recognition of the existence of a field in the percipient lacking in definiteness of attention has indeed not infrequently led to over-emphasis of the receptive state—of the passive conditions—for art effect; too little account being taken of

the reactive elements involved. These latter, however, do in fact make up a large part of the æsthetic complex, as our later æstheticians, Sully, Guyau and others, do not fail to recognise distinctly. Guyau, in fact, in his zeal to force the recognition of his view, makes himself appear, some will doubtless think, to take an extreme view on the other side; to over-emphasise the active element.<sup>1</sup> Any work of art which tends to raise a marked attention in one line necessarily excludes pleasurable feeling in other lines, in that it lowers the effect of these other presentations or revivals as components of consciousness at the time. A work of art which can so balance its elements that the observer is kept in a state of nicely divided and still of constantly shifting pleasurable attention, will produce the most widespread, the most voluminous, although not the most vivid, pleasure.

The power of music is often clearly aided by its indefiniteness—its “dreaminess” as we call it, and it seems to me that the great strength of the masters of music has lain in their ability to widen the field of pleasure by the means under discussion. In such a complex art as the opera the difficulty of reaching this balance is very great. An operative composer of inferior power will not be able to prevent a frequent diversion of attention with consequent loss of fullness. Now one finds oneself watching the stage effects to the exclusion of the music, and again listening to the music with closed eyes, with no thought of the action. In the impression obtained from the best work, Wagner’s for instance, I find myself on the other hand very often lost in the totality; all particulars seem to be forgotten in the general effect; the stage actions are not separately emphatic; the suggestion to note distinctly the “motifs” is an intrusion. The crudeness in respect to finer play of thought and emotion which the *plot* itself in his operas show, is probably a necessary element of their power. The development of “plot interest” would doubtless act as a detriment to the totality.

It is perhaps the unconscious recognition of this principle of diffusion of Attention which leads to the popular opinion that the critical spirit is fatal to æsthetic receptivity, and in one sense this is true; although I am free to confess to the belief that what is lost in width of field by the concentration of the critical view is largely gained in the region of intellectual play, and to the critic who knows well his subject this actually prevents his satiety; overcomes the danger of distaste for work with which he must be over-familiar: communication of his thought to others less well equipped, however, is very likely to mar their pleasure.

But width of field has its dangers too, for it makes easy the shifting of one’s thought upon lines of pain-giving.<sup>2</sup>

<sup>1</sup> Confer Grant Allen’s *Physiological Æsthetics*, p. 37, and Guyau’s *Problèmes de l’Esthétique Contemporaine*.

<sup>2</sup> An example of this has already been given in another connexion, where I called attention to the fact that the tone of voice or anything which indicates the animus of the describer or critic will frequently change an æsthetic into a non-æsthetic object for the listener, and *vice versa*.

Æsthetics, although largely a matter of the complex summation of vague pleasures, needs more than this. To perfection of Art there must be a decided centre of interest flitting more or less lightly over this vaguer field. To the consideration of this point we now turn :—

B. THE SHIFTING FOCUS. In *Amiel's Journal*, 23rd May, 1863, we read: "All that is diffused and indistinct without form or sex or accent is antagonistic to beauty, for the mind's first need is light; light means order, and order means, in the first place, the distinction of the parts, in the second, their regular action. Beauty is based on Reason." Although we have seen that exclusively Rationalistic views of Æsthetics are not tenable we cannot help agreeing that an object which presents no *virile* interests but merely a field of moderate pleasures soon cloy; it becomes "sweet," as they say in the studio. It is the recognition of this fact, probably, which led Lotze to the theory that Beauty requires the grasp of the ideal through some *definite object*, and Volkmann to separate the Art field from the field of Æsthetics on the ground that the former strikes a definite chord above the merely hedonic field of Æsthetics. For Volkmann this definiteness which most emphatically takes its object out of its environment is the direction in which the Art of the Ancients showed its highest superiority.<sup>1</sup> But if art work must impress us by its force of attention, its centres of interest, these points of intenser activity are points of danger: all pleasures are ephemeral, the more so as they are vivid, and the *shifting* of these centres of interest is of as great importance as their existence. I think we shall find this recognised in certain general principles. First, we may look to find means adopted to retain pleasure in one special direction by arranging to shift attention away from the special field before pain or complete indifference occurs, and back again at the moment when pleasurable recurrence of the content is again possible. This brings before us the great principle of Rhythm.

[Because processes of nutrition are relatively regular the times required for complete recovery after full use remain approximately equal in the same set of organs, and it thus happens that we learn to act at recurrent regular intervals, being thus enabled to hold to a special subject matter for a long time, not only without fatigue, but, if the rhythm be properly timed, with marked pleasure.]

<sup>1</sup> *Lehrbuch d. Psychologie*, vol. ii. p. 357. Confer also Herbart's notion that Beauty is a matter of the relation of the presented thoughts and has nothing to do with such characteristics as Loveliness, Pathos, Laughableness, which are mixed with Beauty in order to give an element of interest.

Accurate rhythms are most notable in music and poetry, but what may be termed inaccurate rhythms are the very ordinary tools of the artist in other lines also. The power of order, in architecture, for example, the value of symmetries<sup>1</sup> generally depend largely upon such rhythms. Instances will be recalled by the reader in all the arts without special example.

Passing to the consideration of the shifting of attention beyond the same field, from field to field, we obtain the well-recognised canon of Variety. Monotony of stimulations gives us first indifference and then the positive pains of fatigue. If the content of consciousness be constantly changed, however, the chances of pleasure gain are greatly increased; if a Unity be recognised in the Variety, on the principles already discussed, we have an added pleasure to that gained by the shifting of the centre of interest. Variety, however, like all the means of pleasure stimulation, is likely to be carried too far. Variety of pleasurable exhaustive stimulation will eventually aggravate the trouble we attempt to correct through variety, by making painful *every* activity in our field. An example of this we may all recall in the craving for total rest experienced after a visit to some great exhibition where competitors vie with each other to attract attention to their wares by varied devices looking to pleasure giving. We often find people remarking that they enjoy an art work (especially is this true in Architectural criticism), because it is *simple*. The distracting elements in the varied objects which they have examined in the hope of gaining pleasurable effects have disappeared, and have left a quiet delight not far removed from the so-called pleasures of rest.

*Contrasts*, already discussed, also gain their effects through change of region of stimulation. Where notable, however, they depend upon vividness (hypernormality of action) for their results, and must be used with care lest they act exhaustively.<sup>2</sup> The same thing may be said of those vivid

<sup>1</sup> Symmetries also may be held to produce effect through the hyper-normal stimulus involved in the recognition of the Unity of the Manifold. It may be well here to remark that the search for symmetry in theoretical form which has led many a metaphysician astray has probably had its basis in the æsthetic demand of his nature.

<sup>2</sup> The mechanism of this may not improbably be something like this. If attention be turned in one direction for a time, automatically the systemic activities tend to bring nourishment especially to those organs which are active, and those not active become well prepared indeed (from such nutrition as is not called for elsewhere), but only through failure of stimulation and *notwithstanding* the calling off of the nourishment supply in other directions. When those second-element

elements of novelty which give the value to what we call the Picturesque. We cannot use these means to gain æsthetic result unless we are able to turn ourselves away from their stimulation as soon as we begin to be weary. Hence, we must avoid the use of the picturesque in our homes and must deal most carefully with strong contrasts in the decoration of rooms in which we wish to live, or in buildings which we are compelled to view constantly.

On the whole it appears that the safest means of producing lasting æsthetic results will be reached if we choose that succession of contents, each of which is naturally led up to by those which have preceded.

[In physiological language : we will gain our result best if we choose such successive impressions as will stimulate organs that have been best and fully prepared for action by the associative nutrition (if I may so speak) connected with the previously stimulated activities.]

From this we may argue to a wide æsthetic law which may perhaps be called the *principle of the satisfaction of Expectancies*; a legitimate description of the means of gaining æsthetic result here touched upon as all such movements of thought appear in retrospect to be expectation phases which are fulfilled.<sup>1</sup> That this canon, however, although of wide application, is not a universal one for Æsthetics, is apparent when we consider that our normal, indifferent, scarcely conscious life is largely made up of these fulfilments of expectation, not recognised as such to be sure, unless their legitimacy is questioned in one way or another, and unrecognised because the ordinary reaction is immediate and thus not involving any marked transformation of surplus potential into actual energy, *i.e.*, not involving pleasure.

In general it appears, then, that the great artist is one who is able to make use of the principles above enumerated.

organs which have been inactive are stimulated in *contrast* they answer with pleasure, and their action tends to withdraw the nutritive supplies from the set of organs which had given the first elements of the contrast, so that these first-element organs get less than their normal nutriment; and if we stimulate them again in turning back to the first element, we find a set of organs in some degree prepared, to be sure; but less well prepared for activity than were the second-element organs.

<sup>1</sup> Confer Bergman, *Ueber das Schöne*, p. 132, where the value of arousing expectation and allowing its satisfaction is discussed and carried out to the explanation of the delight obtained in curves, &c., &c. The same argument suffices to explain the pleasures reached by the contemplation of *nuances* of all kinds.



Having avoided pains, having created his wide field of non-pain, he strives to produce a wide summation of pleasurable contents. Further, he so arranges the shifting of attention that as one impression fails in pleasure giving, another equally enjoyable appears through natural connexion to supply the place of that pleasure which is fading away. Moreover, by compelling a judicious recurrence of a special interest he marks a Unity of the Manifold, which Unity gives to his work its distinctive character.

I have already named the great works of Wagner in illustration of the poise of attention; but Wagner's power goes beyond this; wherever we break away from width of effect and allow our attention to concentrate upon details we there find a gem of melody, a delicious progression, a richness of harmony or a masterful bit of orchestration; and if we turn from the music we are still thrilled with emotion or impressed by some profundity of thought. But withal, these details are not allowed to efface the value of the special marked development of the work. Shakespeare's wonderful drama, to take another example, shows us great width of interest, yet always some figures of *special* interest from one to the other of which our attention is artfully shifted without loss of that background of delight which is felt apart from the specially forceful impressions. His genius manifests itself further in the ability to preserve a proper balance, so that using wealth of subordinate elements, no one of them is allowed to rise to sufficiently great importance to mar the general movement of the drama, to detract from the importance of the character whose action is to thrill our souls. The great painter treats his subject in like manner; he gives us a wide, vague, pleasurable background in impression or associative revival trains; a wide field of more marked pleasures over which the centre of interest shifts; without loss of the prominence of the central motif to which especially he would compel our recurrence.

In closing, I think it desirable to take a retrospective view once more. It has been shown in this article, I think, that the principles of practical æsthetics are in harmony with the hedonic æsthetic theory which I defend; and more than that, in accordance with the theory of Pleasure-Pain which I have elsewhere explained. The sketch of æsthetic principles which we have been considering, incomplete and inadequate though it may appear, has thus at least served to accumulate evidence in corroboration of that Pleasure-Pain theory. Nor can this be counted as a small gain; for a theory which on its physical side must be expressed in terms of necessarily vague physiology, and which is difficult to put to the test of experiment, must gain its acceptance, if it is to gain it all, by cumulative evidence such as I have here given; for if it be claimed that the evidence presented is not crucial, at least it must be acknowledged that the value of the theory is vouched for in no inconsiderable degree

by the fact that in pushing it to its conclusions, serious oppositions have not been developed.

Again, I wish to say, however, that I consider the physiological theory of less moment than the purely psychological. I have shown, it seems to me, at all events that the physical basis of pleasure and of pain is determined by relations of a very general character which may belong to any organic activity, and that Pleasure and Pain must therefore be treated, psychologically, as qualities of a very general nature which may under proper conditions belong to any content, as appears also from purely psychological evidence; that they are, therefore, not to be looked upon as the outcome of any special and peculiar mentality, that they are not *sui generis* among psychic phenomena, that they are grasped mentally very much as other qualities of a general character are grasped. We recognise that a Content has Pleasure-Pain quality, much as we recognise that a Content has Intensity; in one and the same general manner all qualities in our psychic stream gain recognition.

### III.—THE RESPECTIVE SPHERES AND MUTUAL HELPS OF INTROSPECTION AND PSYCHO-PHYSICAL EXPERIMENT IN PSYCHOLOGY.

By A. BAIN.<sup>1</sup>

THE resources at our disposal, in imparting to Psychology a scientific character, are now numerous. At the head, must still remain Introspection, or the self-consciousness of each individual working apart. This is the method principally employed since the first beginnings of the science in Greek philosophy. It does not exclude, and never has excluded (as we see in Aristotle), references to objective facts and appearances, deriving from thence a great addition both of insight and of certainty.

In the enumeration of means now available for the study, are included observations (and experiments) directed upon Infants, upon Abnormal and Exceptional minds, upon Animals, and upon the workings of Society, or collective humanity. To these are added Physiology, and, last but not least, Psycho-physical experiments.

The present paper will be mainly a comparison of the relative spheres and mutual helps of the two extremes of the enumeration—Introspection, on the one hand, and Psycho-physics, on the other.

Introspection, considered as a source of knowledge, is a contracted portion of the Subjective side of our being; just as cognition of the outer world is a limited part of the total sphere of sense objectivity. In our desire to know ourselves, to frame some conception of the flow of our feelings and thoughts, we work at first by Introspection purely; and if, at a later stage, we find other means of extending and improving our knowledge, Introspection is still our main resort—the alpha and the omega of psychological inquiry: it is alone supreme, everything else subsidiary. Its compass is ten times all the other methods put together, and fifty times the utmost range of Psycho-physics alone. A very few references will suffice to make good these sweeping assertions.

<sup>1</sup> Read at the International Congress of Experimental Psychology, held in London in August, 1892.

Beginning with the grand Metaphysical issue—Thought and Reality, Knowing and Being—there is no alternative to our individual self-consciousness. If that problem be now approaching its termination; if the various conflicting solutions have been as well stated as they are soon likely to be, the resort all through has been to the introspective analysis of a long succession of self-observers. At no point has objective expression, physiology, the observation of infants, of the insane, of animals, least of all Psycho-physics, offered a single suggestion or cleared the way by one iota. Considering the enormous significance so long attached to this great issue, its exclusive dependence on Introspective method speaks much for the ascendant position of that method in our inquiries.

Next in attractiveness, and acquired importance, is the wide and various domain of Origins. To trace back the experience of the mature individual, compounded, as it must be, of many prior psychical occurrences in our history, has occupied, and still occupies, a large share of the attention bestowed upon psychical themes. This is not so exclusively dependent on Introspection, or on any single method. Self-conscious analysis must indeed take the leading part, as is easily made manifest.

In exploring the primary elements, and early stages of our notions of Space, Time and Cause, we first endeavour to discern in each some simpler ingredients still distinguishable in consciousness, as when we think we identify in Space a motor or muscular element, or according to some, an element of massive sensation, as the essential circumstance. This is pure Introspection; and the evidence lies with each one's inner consciousness. Experiment has also been appealed to, and although not as yet conclusive, may one day become so. The extensive researches on the nature of binocular vision, with reference to our sense of solidity, are very much in point, and appear to remove the problem from the domain of Introspection, and to claim it as a psycho-physical trophy. This would be so, if experimenters were agreed, and if all difficulties were overcome, which is more than can yet be said. The observations on the blind, when made to see, are to this hour the subject of contradictory interpretations, in great part due to an uncertain element of heredity which defies our means of elimination, and which must cling to all our researches into origins.

Most valuable, at this point, are the observations on Infancy, which serve other purposes as well. But the upshot of the whole is to estimate our endowments at birth with a very wide margin.

If we proceed to the Emotional part of the inquiry, we are equally, if not still more, in the vague. We know that there are primary modes in all the leading emotions, as well as in the great field of our sympathetic nature; infancy proves thus much, but leaves us in a hopeless uncertainty as to the precise definition and amount of those original constituents.

Thus, then, if Introspection fails us in the search after origins, the other methods cannot be said to make good the deficiency. They do not seem to be as yet on the way: they are crossed at every turn by an inscrutable contingent in the shape of instinct, now stated as heredity.

The two departments I have now quoted have hitherto been in the fore-front of psychological inquiry. True, their importance is in no sense practical: they do not yield any fruitful applications in human well-being. Their place is in the transcendental region of speculation, in the depths and mysteries of the Universe. The fascination exerted by them has enrolled them among the studious pursuits of mankind, in the total absence of any obvious bearing on our practice.

Interpenetrating the two departments now noticed, is the *Qualitative Analysis* of our mental powers at large, the decomposition of the complex products (and the largest part of us is complex) into simple elements. This has always been regarded as a leading aim in psychological study, and it has achieved a certain amount of success, although we may not be agreed as to that amount. Be this as it may, if the end is desirable, if it is in any way helpful in the struggle of life, and if it is within the range of our ability, the means, and almost the only means, is Introspection.

In the lower region of Sense and Instinct, the analysis has been chiefly due to experiments that may properly be styled Psycho-physical. The brilliant discoveries connected with Hearing and Sight could not have been made otherwise. Introspection could not have brought about the decomposition of musical tones, or the successive phases of our knowledge of the spectrum. Our subjective consciousness is always present as one side of the phenomenon: the other side is objective and experimental. This is the region where mind and body are most palpably associated, and where laws of connexion can be arrived at; physical experimentation being needed for the purpose.

The department of the Expression of Feeling is equally, if not more, illustrative. The analysis that has been conducted under this head is the decomposition of the complex

manifestations of the features, voice, and movements generally, into primary elements severally connected with our simplest feelings. We can specify the separate muscles entering into the combined display of joy or sorrow, and can endeavour to assign the precise significance of each on the mental side. We know the meaning of the frown, the raising of the eye-brows, the elevation and depression of the angle of the mouth, and, more obscurely, the elevation of the nostrils. Plain unassisted observation has done all this: the multiplied interrogatories of Darwin addressed to observers scattered over the world, his references to infancy and to animals, have added something to our more familiar experience in the way of settling the significance of the various details of facial expression. Not satisfied with this, however, the attempt has been made to constitute it a question of Origins. How did we first come by these characteristic modes of showing our feelings in outward display? They are now instinctive and hereditary, in what way did they take their rise? The matter is still a question of the connexion of Mind and Body, and our wish is to generalise the appearances into higher laws of connexion. Darwin has included this in his aims; yet he has nothing in the way of experiment to fall back upon. By an effort of speculative daring, he has endeavoured to assign a few general laws of operation that may have originally given birth to the manifestations that we are now familiar with, and there the matter remains, an hypothesis and nothing more.

When we pass from the domains of sense and outward manifestations, to the depths of our inner nature—Intellect, Feeling, Will, we are landed on Introspection almost exclusively. The division of the mind as a whole into the three usually recognised powers; the further analysis of the Intellect into faculties or otherwise; the ultimate rendering of Will, Attention, Desire, Belief: the resolution of the vast plurality of our Emotional nature into the fewest elementary constituents; the problems of Beauty and Fine Art; the foundations of Sympathy and the rendering of Conscience, can be approached mainly through Introspection. These few general designations are wide enough to comprise nearly the whole of the mind; their outgoings are beyond reckoning. If their sole means of investigation is the introspective consciousness, our estimate of its sphere relative to the other methods is not exaggerated. That hopes have been formed of penetrating these depths by the new instrumentality is shown in the attempts to grapple with Attention

and Association, and to arbitrate between contending views, by direct appeal to experiment. I do not consider these attempts as futile; quite the contrary. I am content with affirming that they carry us a very little way into the arcana of our being; that they only cover ground accessible to Introspection, and that they may to a slight degree correct some of the inadvertencies of the introspective observer. This might be shown if I had time to criticise the experiments upon Association intended to determine and establish the ultimate associating principles. I maintain that Introspection is perfectly competent to deal with this problem, and the other method, whose legitimacy I admit, not more so.

It would be easy to expatiate on the boundless realms of human thought and feeling where Introspection is our chief instrument of exploration. It is, however, more profitable to turn aside for a little and dwell upon the best manner of employing the instrument. And first let us note, that the inquirers of the past have never neglected the help of objective signs, that is, outward manifestations through the expression of the feelings, the outgoings of the will, and the revelations of language. At the same time, we may freely admit that looking at the method in its widest compass, it is very far from being perfectly handled. Hence the introduction of the new methods, borrowing as they do the more accurate ways of physical science, should put the Introspectionists on their metal, should stir them up to greater efforts, and to more advanced precautions for getting at the facts of our inner being. It would of course take a *Novum Organon Psychologicum*, to treat this theme adequately. That observations should be made with care, that they should be noted down carefully on the instant, that they should be repeated under various circumstances, that different observers should compare their results—is all a matter of course, if we aspire to work after the manner of science. Moreover, the logical procedure, applicable equally to introspection at the one end and to psycho-physical experiment at the other, manifestly involves care and precision in the selection and employment of terms, adequacy in the inductive basis of generalities, and whatever else is common to scientific workers at large. Beyond this, however, is the far more subtle condition, corresponding to what is called, in Natural History, philosophical classification, meaning the choice, from among various generalities, of those that not only cover the widest region of facts, but that carry with them the richest connotation.



Another digression may be allowed before concluding our main issues.

Students of Psychology as yet have scarcely ventured to set before their minds the final ends of the study in the *economy of life*; still less have they been guided by these in choosing the topics for special inquiry, experimental or other. It might seem a dangerous fascination to be lured by the prospect of some immediate advantage; the history of science affording various striking instances of researches that yielded their fruits only in the course of long ages. There are obviously two extremes to be guarded against, and, between, a safe middle way, if we could light upon it. Problems ought to be found that are apparently within reach of solution, and that are laden with obvious and valuable applications to practice. Some of these have already come within the scope of the experimental and psycho-physical inquirer, or, if started and sketched by introspection, are susceptible of greater precision by the help of these other methods.

I now revert to the estimate of Introspection as the medium of Qualitative Analysis in Psychology. In the cases where it is everything, as in the deeper Emotions, and in Dreams, no more needs be said. There are other cases, and those very numerous, where the steps of a truly mental operation are fully disclosed to outward observation, as in language, oral and written, in the dramatic displays of emotion, and in purposive action upon outward objects. The laws of our inward being are very fully revealed in such cases, and may be generalised with safety and confidence. Yet there is a something wanted, and that something Introspection can supply. Outward expression, however close and consecutive, is still hop, skip and jump. It does not supply the full sequence of the mental movements. This entire unbroken sequence is revealed solely to Introspection. Now it is a well-known position of the Logic of Induction that only empirical or secondary laws can be arrived at in such a situation. The intermediate links of the operation must be filled in and generalised in order to reach the primary or highest laws. Yet further, a fact partly known by outward signs is known in all its circumstances and surroundings only by introspection. This is true of the intellectual trains, which lend themselves favourably to outward expression. We can read any one's thoughts in their flow of verbal expression; yet we need to supply much by transferring to ourselves the ideas that the words

suggest. The important laws of the succession of thought are exemplified in every one's expressed intellectual trains, but we must check and fill out what is thus conveyed by reference to inner consciousness. Still more decided is this necessity of self-reference when we are dealing with the ongoings of the emotional life. The helps of outward show, and still more of experiment, are of the utmost value here also; but their operation is merely at the circumference, while Introspection reaches the centre.

It will be a great day for Psychology when all the numerous complex facts of mind can be resolved into primitive or simple elements. Even if one-half or one-third of our mental workings could be so treated, we should have matter for congratulation. Yet an equally vast problem remains, namely, the *Quantitative Analysis*, the measurement of degree or amount, in our various states of feeling or emotion. It is only in so far as this is possible, that we are entitled to speak of our subject as a science in the proper sense, that is, a science that can yield applications to practice. The difficulties are great: the aim can never be perfectly realised; nevertheless even a partial success will bring its reward. Introspection, pure and simple, is least able to furnish precise estimates of degree, but is very far from being wholly impotent. Even our subject states can be computed by number of successions, and by duration in time; both circumstances revealing to us differences of emotional intensity, which is what we are mainly bent on arriving at. A further resource is furnished in the intellectual situations due to the varying intensities of our feelings—a fact recognised to some extent in our every-day practice, and in poetry (see Hamlet's test 'man delights me not'), but capable of far higher developments than we have yet seen.

When we avail ourselves of outward signs, our means of measurement approach to the precision of the objective departments of knowledge. The manifestations of feeling go through a scale of emphasis, in energy of gesticulation and in the choice of terms. When we are dealing with the same personality in a like physical condition, the estimate of symptoms of emotion is nearly perfect, supposing there is no effort at concealment. We do not fail to employ this criterion for guiding our conduct towards others.

A great enlargement of this resource is promised by the methods of psycho-physics. It has already taken the form of Anthropometry, in which several investigators, notably

Francis Galton, have done good service. Prof. Cattell is vigorously following in the same track. The comparison and estimate of characters are the direct offshoot of this research. Unless, however, subjective knowledge is brought to bear at the same time, it will soon reach its term.

The measurements needed for Psychology proper may be summarised thus. First, a mode of estimating the intensity of individual feelings in special moments, and of recording that estimate: each of us operating on self. Next, a similar estimate of the states of other persons, necessarily more difficult but yet possible. Thirdly, the generalising of those estimates for definite circumstances, by way of arriving at provisional laws of cause and effect in the region of feeling. Fourth, a summation of occasions of feeling through time, so as to deal with it in masses, as regards both quantity and intensity. This last effort is likely to be scouted as impracticable and illusory. The reply is, that we cannot evade the operation if we wished. It is carried out at present in the loosest possible way. We constantly proceed upon totalised estimates of the pleasures or pains of certain lines of conduct, and feel no want of confidence in our estimates. Yet there must be a better and a worse mode of going to work. If Psychology is ever to be of service to mankind, here is the opportunity. It is not difficult to show that the habit of psychological study marks a great improvement on our commonplaces. As a single illustration, I would refer to the problem of Pessimism, popularly treated, and as seen in the judicial handling of Professor Sully.

The great life problems that engage the attention of mankind manifestly take the form of estimating differences of value, with a view to choice or preference. In ethics, economics, in rhetoric, we have to arbitrate between opposing considerations and motives, and, whether we will or not, must assume some measure of their respective amounts. To arbitrate between the Stoic and the Epicurean theories of life, we must decide questions of comparative worth; and progress in psychological knowledge should prove its genuineness by coming to our aid.

I have been talking exclusively from the point of view of Introspection, and should now sketch the Psycho-physical lines of attack, with a view to the final aim of the paper. In this, I have to observe a severe brevity, if indeed I must not be content with assuming it to be perfectly known to my hearers, and merely cite a few of the aspects relevant to my purpose. The whole region of Sense has profited largely by

the inquiries properly designated Psycho-physical, and in Sense, we have the first groundwork of Intelligence. The completing portion of the structure—the Intellectual laws—has also been attacked by the like mechanism. The region of Feeling proper—pleasure and pain—whether Sense or Emotion, has been almost untouched, notwithstanding that this is the region of the great life issues. The truth is that Psycho-physics cannot here take the lead, although it may become a valuable ally. Even where it does assume the initiative, Introspective Psychology must step in to give completeness.

Perhaps the shortest course now is to single out a few important researches where both methods are applicable. I begin with those most adapted to experimental treatment, and already so treated.

1. We cannot do better than select the Muscular mechanism, the primary instrument of our activities for all purposes whatsoever. It has been ascertained, for one thing, that muscular expenditure, instead of being a uniform discharge of energy, like a waterfall, is an essentially fluctuating current, like the wind; and the proper management of such fluctuation is the economy of our strength. In order that the smallest outlay of power may yield the greatest results, regard must be had to this characteristic; and experiment has not been wanting for the purpose. I may mention such economies as these:—The best angle of ascent for rising to a given height at the smallest cost of fatigue; the pace of movement yielding the greatest result with the least exhaustion; the interposing of rests at well-chosen intervals, and in proper amounts; the regard to be paid to our fatigue sensations, so as not to be misled by the occurrence of these at an early stage, while there is still a large reserve of working power. Throughout this whole field of properly experimental observation, important practical guidance can be obtained such as the experience of the race has not yet furnished.

The exercise of muscle carries with it nervous expenditure from the motor centres, a concurring factor in muscular work. It is clearly possible to estimate this also by proper experiments. Nay more, the consideration of nervous waste and repair, while allied in the first instance to the department of muscle, may be extended to nervous activity in general, that is to say, to the workings of the nerves in the higher sphere of ideas. We are thus carried a far way into the depths of the mind. The question needs to be attacked

on various sides. Introspection comes decisively into play, inasmuch as our states of nervous freshness, fatigue, and recuperation, are all clearly revealed to consciousness, and we can also, whether by consciousness or by observation, take cognisance of causes, consequents, and adjuncts. While the introspective inquirer can bring to bear the highest resources and refinements of his method, the experimenter can work on lines proper to himself, and so contribute his share to the vast problem.

2. So far, we have merely broken ground upon the physical side of our being, taking advantage of the unquestionable physical concomitants of our ideal life. A move in advance has next to be made by entering on the great Intellectual problems, as expressed in strictly psychological form. In short we have to propound, for definite and many-sided inquiry, the theory of Intellect as expressed by such terms as Memory, Retentiveness, Association, Reproduction, and the like. Here Introspection undoubtedly has the largest share, but not unaided by other means. Whereas a considerable range of so-called experiment and observation, involving pure objectivity, has hitherto accompanied the introspective study, and may continue to be prosecuted with ever-increasing precision, attempts are now made to bring in machinery of the kind commonly understood as psychophysical. Thus we have seen the employment of the reaction-time apparatus in the service. In order to supply the proper interpretation, as well as the proper qualifications of the use of this apparatus in the sequences of thought, the way must be prepared by ascertaining everything that introspection has hitherto been able to reveal or suggest. The minute linkings in our thought successions are open to introspection and to that alone; the same being true of the concurring mental modes that are not strictly intellectual, namely, Feeling and Will, to overlook which is to falsify the situation.

3. A wide and important region of intellectual operations, falling within the circle just designated, comprises the momentary fluctuations of ideas in and out of consciousness. So far as I am aware this department of our mental activity has not been adequately resumed under any general designations. Many phrases have come into use in connexion with it, such as "threshold" of consciousness, recency of impressions, area of consciousness, lapses of attention,—yet much remains to be done in the way of bringing the whole under comprehensive statements. Introspection, with its proper auxiliaries, needs to be more and more plied to bring this

whole field into its proper relationship with the wide realm of Ideation, Association, Attention. At the same time, the resources of our psycho-physics are now profitably directed upon various aspects of the vast problem. Indeed, one could point to observations already made which, duly interpreted, would impart precision to our language in dealing with the facts; while it can be made clear, that the psycho-physical mode would have its value determined by its co-operation with the best results of the introspective survey.

4. The determination of the conditions of permanent association, or enduring memory, as against temporary, or so-called "cram," is a matter for careful inquiry, the introspective method being backed by experiment, whether of the kind that has always been taken into account, or of the more special, technical, and organised modes of procedure peculiar to the modern openings. It would be a step gained, if any single person were to reduce his or her individual experiments to definite statements of time and circumstances, as connected with retention, on the one hand, and obliviscence on the other. A concurrence of observers proceeding in like manner would make an approach to the establishment of general principles, with suiting qualifications.

To refer briefly to some other great issues now waiting solution, and partly undertaken already, I would place in the foreground, as obviously within reach, Plurality of simultaneous impressions in every one of the Senses. This is one of the preliminaries to the discussion of many Intellectual problems. Attached to it is the question already adverted to, of the operative power of impressions, while momentarily standing aside from the conscious area. For these problems, Introspection, at its utmost stretch, needs to be helped out by experimentation; while the delicacy of tact in the self-conscious observer is also of the utmost importance.

One of the most pregnant issues in the whole field of Psychology is the swaying of the will by motives outside of pleasure and pain, otherwise called the Fixed Idea. The experimental test is available here. A strong light in the room arrests our gaze, even when painful, as shown by the relief afforded when it is screened. There is, however, a point of intensity when the pain overpowers the moth-like fascination. Here are two limits that experiment can enable us to assign. A large number of individuals need to be operated upon, and the results compared. I do not know of a more important clearance in the doctrine of the Will.

Sight is not the only sense where the point in question is raised.

Until there is a more general agreement than at present on the analysis of the fundamentals of the Intellect, it is premature to recommend a searching investigation into the working of Similarity in Diversity, on which hangs, as I conceive, the inventive powers of the mind, just as much as simple Memory reposes on the adhesion of conjunctions in time. Both Introspection and Experiment are serviceable in this great field ; and the employment of either is a stimulus to the other. The Psycho-physicist should be familiar with the problem as given in self-consciousness ; and the Introspectionist should, here as elsewhere, welcome and assist in interpreting well-chosen experiments, even if he does not make them for himself, the more desirable arrangement.

For the present, however, there is abundant scope for Introspection, pure and simple, in roaming at large over the accessible facts of Psychical life, so as to check the received generalities, and to replace them, if need be, by others of an improved cast. There has been, in the past, a gradual, though slow progress in this field of labour : we hope to see acceleration in the future, with or without the aid of the psycho-physical machinery. By the nature of the case, the initiative, in the more fruitful lines of inquiry, will be most frequently taken by Introspection, which also, by its powers of analysis, will still open the path to the highest generalities of our science.



#### IV.—“MODERN” PSYCHOLOGY: A REFLEXION.

By J. WARD.

THE modern era generally is supposed to have begun with the fall of Constantinople, but the “modern” psychology *par excellence* was unheard of till some three or four years ago. The founder of it, though he does not belong to it, may be said to be Prof. Wundt, from whose *Physiologische Psychologie* it has got its ideas, and in whose laboratory some of its chief exponents were initiated. It is in the main an old story: the disciples “rush in” where a master “fears to tread”. Much as Locke, we can imagine, would have expostulated with the French Sensationalists and Materialists who professed to develop his teaching, so does Wundt—with exemplary moderation and temper—seek to reclaim these wayward young experimentalists, to whose doctrines the name of Psycho-physical Materialism has been given. A younger generation that has witnessed and in some degree aided the rapid advances of experimental psychology is confident—and quite naturally so—that a method that has accomplished so much can accomplish a great deal more, perhaps everything. Certain reservations in favour of metaphysics, epistemology or “transcendental psychology” are allowed, sometimes for decency’s sake, but often with obvious irony. The new and the old ways of gathering the facts of mental life, we are told, are diametrically opposed: “the old philosopher betook himself to a quiet retreat and *thought them out*, the psychologist of to-day in the laboratory carefully measures and records his experiences”. Brain-processes furnish the touchstone of truth, the solid ground of nature for the “modern” psychologist: such mind-processes as he can correlate with these, either actually or hypothetically, he accepts as fact, and any that he cannot he is ready to stigmatise as fictions or “Hilfsbegriffe,” and to relegate to metaphysics, in other words, to cast aside as draft or dreams. For I take it we may assume that the word metaphysics in this connexion is almost always used dyslogistically. The outcome is that we have the psychology of Hume reinstated. It is the triumph of Associationism.<sup>1</sup> Sensation, Retentive-

<sup>1</sup> Cf. MIND, xv. pp. 234 ff. for a jubilation thereat *à propos* unfortunately of a very indifferent performance.

ness, Association by Contiguity—these are to be our ultimate and sufficient psychological conceptions: the facts of feeling and conation are resolved into facts of sensation; and all mind-processes held to be not merely conditioned but explained by brain-processes, which they accompany as epiphenomena or “Begleiterscheinungen”. It is not so long since the world was shocked at Lange’s *mot* about a psychology without a soul, but the “modern” psychology is a psychology without even consciousness. “Content of consciousness” as much as you like, but consciousness itself, consciousness as activity, is not our affair; we leave that to metaphysics, say our “modern” teachers.

By this sort of thing Prof. Wundt has recently confessed that he is astounded and depressed.<sup>1</sup> His depression one can understand; but there are several considerations that might help to lessen his astonishment. These young psychologists start from the brain, and look to this for their clue. “Let us then,” says one, in a recently published textbook, “seek for what is psychical where we find it conjoined to processes of the nervous system instead of setting out from a definite division into three faculties or any other such hypothesis.” In other words: Let psychological analysis conform to brain-physiology and await its verification from this. And is Prof. Wundt’s own procedure so very different? Though he has completed the circle of the moral sciences in his writings, all the psychology he has given us is “physiological”. He, too, begins with brain and localises—to be sure in a very tentative fashion—the organ of apperception, *i.e.*, of thought and volition, before he has ascertained psychologically in what thought and volition consist. And, when he does come to treat of them, uses language concerning them that makes it difficult to conceive how there can be an organ of apperception at all. Since 1874, when the *Grundzüge* first appeared, a whole generation of psychologists has arisen, and it is not too much to say that this work of Wundt’s has been the main pabulum of the majority, and especially of those who are the busiest and most aggressive, and go down to do their work in laboratories. One has only to turn over the pages of the *Philosophische Studien* to understand the psychophysical bias that Wundt has brought about. No wonder his pupils have adjusted their minds to their psycho-physical environment: in this they have found life and movement and enthusiasm, while psychologies of an older day lie dead and

<sup>1</sup> *Phil. St.*, vi. p. 382.

dusty on the library shelves. But if physiological psychology is to be kept within due limits, it must be *preceded* by a psychology that is not physiological, one in which the fundamental conceptions of the science are systematically and independently ascertained. What, for example, have religious feelings or the free will controversy or metaphysical hypotheses concerning the essence of the soul to do with physiology? Yet Wundt brings them all under the same covers as squinting, nausea, and catalepsy. The contents and even the arrangement of his book remind one more of a store in the backwoods than of a scientific treatise by one who feels he can teach the world about method. One can only suppose that, as has been the case with other great works, the arrangement of the book is the history of the author's mind. At any rate it is not surprising that young psychologists eager to be "modern," and introduced to the study of mind by way of brain sections, the frog's leg and Hipp's chronoscope, should find Wundt clear only so long as his psychology is physiological, and should speak with such general contempt of his "theory of apperception".

Take his own definition of sensation: Sensations are "those states of consciousness which cannot be analysed into simpler elements". Is it not plain that, according to such a definition, feeling and volition are either sensations or complexes of sensation, or are not *states* of consciousness? But this definition, which has appeared unchanged in the last two editions of the *Grundzüge*, its author now seems disposed to amend:<sup>1</sup> "sensations are to be the ultimate elements of such contents of consciousness as we refer to external objects". His own usage, however, does not conform to this definition: on the contrary, it does much to justify the resolution of feeling and volition into sensational elements, of which physiological psychology can take account, *plus* a purely hypothetical conception, to which it can have nothing to say. Thus he talks of an "immediate sensation of Activity" (*Activität*), and, again, of a "sensation of spontaneity" with which is conjoined that activity (*Thätigkeit*) of consciousness that is the essential attribute of apperception or will.<sup>2</sup> Then, again, he tells us that "in all volitional activity (*Willensthätigkeit*) we have to distinguish the more or less constant phenomenal accompaniments (*Begleiterscheinungen*)

<sup>1</sup> In the first edition (p. 274) the pure sensation is described as "the element out of which all the other products of consciousness proceed".

<sup>2</sup> *Ethik*, p. 380.

from this essential attribute of will (*viz.*, *Thätigkeit*)". Of these phenomenal accompaniments he enumerates two classes: (1) sensations of effort or strain (*Spannungsempfindungen*), and (2) feeling.<sup>1</sup> The former furnish "the nearest, if not the only *measure* of the energy of our volition," while the latter, as we learn elsewhere, is "the *mode* in which apperception reacts". The following sentence is then immediately added to make this mode clearer: "Apperception depends, as we shall see, on the one hand, upon the stimuli then at work; and, on the other hand, upon the total state of consciousness, how it is made up, that is, by present impressions and prior experiences. . . . If we would describe more nearly what it is that we experience (*empfinden*) in ourselves when pleased or pained we cannot do this more concretely (*anschaulicher*) than by denoting pleasure as a straining (*streben*) after, and pain as a straining against, an object."<sup>2</sup> Now as to this measure and these directions and their determinants in consciousness—we are equal to all these, say the "modern" psychologists, but we are not equal to the outstanding activity (*Thätigkeit*) which apparently is not *in* consciousness as part of the total state, but is first affected by that, and then reacts upon it. We object to recognise as a fact of consciousness what has no assignable place in the content of consciousness. To this Wundt makes a reply which may seem to many a hopeless and complete surrender: "You refuse to recognise this 'moment' of activity which is the one essential characteristic of will, because it can't be pointed out as a self-subsistent content of consciousness that may be isolated at least *in abstracto*, as sensations may be. But manifestly this is just what the conception of activity excludes. . . . The psychologist who denies it is under the dominion of a prejudice like that of the adherents of the Aristotelian physics who opposed the Newtonian conception of gravity, because gravity only manifested itself in processes between bodies and was not an independent entity." Now it is a great point with Wundt to maintain—and in this both he and the "modern" psychologists agree—that psychology has to do with nothing but processes or events. Turning then to his parallel case of physics, it is, I presume, sound doctrine to say that magnetism, heat, and all the so-called natural forces are equally with gravity processes between bodies; and that—while the difference between one

<sup>1</sup> *Philosophische Studien*, vi. p. 390.

<sup>2</sup> *Grundzüge*, i.<sup>3</sup> 535.

physical process and another is observable, is fact—force, as that which causes matter to undergo change at all, is a notion outside the facts. If Wundt's "activity" is to be understood as an activity which is generically the same in all psychical processes, then its treatment by the "modern" psychologists does *not* put them on a par with those early objectors to gravity but rather with modern objectors to force, such, *e.g.*, as Prof. Tait. Wundt's condemnation of them as "deeply sunk in the naïve substantiating of concepts" would so far seem to recoil upon himself. And this the more because Wundt in many places assimilates the conceptions of physical force and psychical activity.<sup>1</sup> Yet in this latest article he becomes almost pathetic as he protests how often he has had to insist that "will and apperception can have absolutely no reference save to definite internal processes somehow distinguishable from other processes by assignable characteristics". But why then does he degrade the only specific characters he can assign them to the rank of more or less constant accompaniments of the "one essential characteristic" which he cannot help setting over against "any given content of consciousness" as a process by means of which this content undergoes definite changes? The "modern" psychologist like the modern physicist elects to confine himself to the definite changes and the phenomenal accompaniments. These, he holds, are either sensations or comparable to them as being variable elements within the contents of consciousness which are somehow distinguishable.

If, then, Wundt prepared the way, why did he not follow : or if his frequent exposures of the error of it are so evident, why is he unheeded? It is a case of one of many perennial controversies in which neither side can convince the other. Unhappily this controversy has no generally recognised name. The side Wundt combats have been variously styled Sensationalists, Associationists, Presentationists. He himself proposes to call them Intellectualists on the ground that they identify feelings and volitions with cognitions. But this term, which with us denotes the opposite of Sensationalist, would certainly prove misleading. Presentationism or Associationism seem better names for a doctrine the gist of which is that all the elements of psychical life are primarily and ultimately cognitive elements, and that all the laws of their combination are reducible to

<sup>1</sup> *Cf.*, *e.g.*, the section in his *Logik* (i. pp. 551 ff.) headed: "Der psychologische Kraft begriff".

association. It was Hume who first raised the issue clearly, as, *e.g.*, in the section of his *Treatise of Human Nature* in which he affects to prove that of self we have no "real idea". "The mind," he says, "is a kind of theatre, where several perceptions successively make their appearance; pass, re-pass, glide away, and mingle in an infinite variety of postures and situations. There is properly no *simplicity* in it at one time, nor *identity* in different." And lest his readers should reply: But players at least imply a stage, as impressions—to use Locke's figure—imply a *tabula rasa*, he hastens to remark: "The comparison of the theatre must not mislead us. They are the successive perceptions only, that constitute the mind; nor have we the most distant notion of the place, where these scenes are represented, or of the materials of which it is composed."<sup>1</sup> Now it must be acknowledged that Hume has never been conclusively refuted on psychological grounds; and, as his analysis of mind is the only one that seems to lend itself at once to physiological interpretation, there would have been nothing surprising in its present revival even if the most prominent of our living psychologists had been as pronounced in this controversy as he has been vacillating. That his inconsistency is in part unconscious only shows the difficulty of the controversy in question. A complementary inconsistency will be found in Hume and the Associationists. When Hume says: "For my part, when I enter most intimately into what I call *myself*, I always stumble on some particular perception or other. . . . I never can catch *myself* at any time without a perception, and never can observe anything but the perception," his very language, spite of himself, belies his theory. But not more than Wundt's language about sensations of spontaneity, sensations of activity, belies his.

Either side has a difficulty which the other presses home. The special difficulty of the presentationist who resolves all the facts of mind ultimately into ideas, impressions, cognita, or "contents of consciousness," as the phrase is now-a-days, consists in the agent and the activity which thought and consciousness imply. His favourite way of disposing of this difficulty is, as we have seen, to relegate it to some more fundamental science. "Modern" psychology makes a great show of system in this procedure by instituting a parallel between the subject of psychology and the substance of physics, and by insisting that psychology as a

<sup>1</sup> Green and Gnose's ed., vol. i. pp. 534 f.

science can deal only with events, and not with efficient causes. This very plausible assumption that psychology is a natural science co-ordinate with the rest will meet us again directly. Meanwhile, it is more to the point to notice the difficulty of those whose analysis of mind leaves them with feeling and activity as elements irreducible to cognitions, and yet part of the facts; thus making the antithesis of subject and object to be the very essence of the science. The difficulty on this side is, in some respects, the more serious of the two, for it presses immediately, and cannot be well postponed. Feeling, *i.e.*, pleasure and pain, the activity implied in consciousness (Wundt's Apperception, the Attention of many recent writers), and the subject of this feeling and activity are set off over against ideas or presentations as distinct factors or constituents of mind, and are, therefore, *so far as distinct from these*, regarded as not themselves ideas or presentations. Of course, it is admitted on all hands that these subjective factors cannot exist apart from the objective. But that does not affect the difficulty, which is that, though themselves classed apart from ideas or presentations, we are forced to admit that we have ideas or presentations *of* them. As it is sometimes put: we don't know them, but we know about them. But how can I know about what I don't know? Well, there is a sort of answer to this question, but it only defers the difficulty, and, in one respect, aggravates it. We know about things, so far as we know their relations—in this way we all know about the ether and the atoms; in this way the blind may know about light. Knowing these things themselves implies direct acquaintance, intuitional as distinct from conceptual knowledge. On a comparatively restricted basis of sense-acquaintance rest wide domains of scientific knowledge. "By means of data furnished in the narrow world of the senses, we may make ourselves at home in other and wider worlds, which can be traversed by the intellect alone."<sup>1</sup> So in like manner knowledge about feeling, attention, and the subject that acts and feels must rest, it would seem, on some direct acquaintance, even though comparatively restricted, *i.e.*, on some modicum, at least, of presentation. Moreover, this modicum must be our datum, and the wider knowledge, however scientific and stable, must be inferred from it. Having got this far, it cannot surprise us to meet the exact contrary of our first proposition employed to characterise these subjective factors: We

<sup>1</sup> Tyndall, quoted by G. H. Lewes, *Problems of Life and Mind*, i. p. 261.



know them, but we know nothing about them. Let us take one case as an instance—that of feeling. We frequently use this term as the very type of immediate certainty, and such immediacy and certainty seem absolute when feeling denotes being pleased or pained. That yet for all that we know nothing about it is best shown, it may be urged, by the fact that psychologists have so far been able to tell us nothing, and either, on the one side, make inferences about it from its causes, or, on the other, from its effects.

We note then two points: (1) that there must be some vagueness in the use of the word "know" when sane and reputable thinkers make such opposite statements, and (2) that in the case of feeling there must be something near akin to immediate knowledge, whether that be the most appropriate name for it or not. Even the view that expressly denies this seems to involve it by implication. Let us look at this latter point more closely first. Those who maintain that the immediacy of feeling is cognitive do so largely because they identify, or at least closely assimilate, feeling with sensation. The justification for such more or less complete identification is found in the important facts usually denoted as the feeling-tone of sensations. According to many of Wundt's statements, for example, feeling-tone is an element of the sensation along with intensity and quality. If sensation belongs to the cognitive constituents of mind, the elements of sensation must belong there too. But is this feeling-tone an element in sensation and not rather a consequent or effect of sensation? The whole of Wundt's exposition in the long chapter devoted to sensuous feeling seems to me a refutation of his original analysis, and even that is advanced with some hesitation.<sup>1</sup> In the main chapter he not only speaks of feeling as "an immediate affection of consciousness through sensation," and as a symptom of a *more central* process than we find in the quality and intensity of a sensory excitation; but he explains at length "the dependence of sensuous feeling on the total state of consciousness". Wundt, in short, in common with many others, recognises a difference between the immediacy of feeling and the immediacy of presentation. Such difference may be a difference of degree or a difference in kind. The prevailing opinion unquestionably is that it is only a difference of degree. This view finds expression in the familiar law first pointed out by Kant and formulated by Hamilton, viz., that "knowledge and feeling, perception and sensation,

<sup>1</sup> *Physiologische Psychologie*, i.<sup>3</sup> p. 290.

though always co-existent, are always in the inverse ratio of each other". On the strength of this, Horwicz, and more recently Kröner, have made feeling—*i.e.*, pleasure and pain—the fundamental fact of mind, from which definite presentations are gradually differentiated. Spite of all, there are, I believe, good grounds for the opposite view, *viz.*, that the difference as regards the immediacy between feeling and presentation is a difference of kind; that feeling is not obscure cognition nor sensation objectified feeling; that feeling, in a word, is always subjective and sensations always objective, objective of course I mean in a psychological sense. According to this view, the duality of consciousness or the antithesis of subject and object is fundamental: according to the opposite view, the difference of subject and object gradually "emerges" as the result of development or "differentiation".

We cannot further clear the ground without dislodging whatever is fixed and definite in that sand-heap of a term—consciousness. There are at least four distinctions in current use, the grounds of which we must, if possible, ascertain and explain. There is (1) the distinction of Consciousness and Self-consciousness; (2) the distinction of State of consciousness and Content of consciousness—terms which must have a different connotation even if they turn out to denote the same facts; (3) the distinction of a fact of consciousness and consciousness of a fact; and (4) the collective and the distributive use of the term consciousness. No doubt these different meanings overlap; indeed, we may find them all to arise from the first.

To begin: Is the term consciousness to be used collectively of the whole that we analyse, or distributively of each factor or element in it? When the phrase, State of consciousness is used, it seems obvious that consciousness is to be collectively understood. It cannot be exact to say that every state of consciousness consists of states of consciousness. A thing cannot be in two states at once, though its state may be more or less complex. That we do nevertheless continually find psychologists speaking of cognition and emotion and conation as both inseparable constituents of a state of consciousness and also in themselves states of consciousness, is due to the fact that but one of the three is usually prominent at a given time. Such writers first ignore the presence of the uninteresting factors and then use language which implies their absence. But when the phrase "content of consciousness" is used, since the whole content can without impropriety be regarded as made up of partial contents, the term

may be used either distributively or collectively. According to this usage, cognitions, feeling and volitions might be regarded as severally contents of consciousness, though all required to constitute one state of consciousness. We may suspect then that presentationists who confine themselves almost exclusively to the use of content attach a different meaning to consciousness from that assigned to it by those psychologists who speak freely of states of consciousness.<sup>1</sup> And, in consequence of this difference in signification of the fundamental term, we may suspect too that the subordinate terms, cognition, feeling and volition, are employed in a modified sense. We may possibly ascertain the precise difference we suspect if we consider the phrase "conscious of" and the cases in which it is appropriate to use it. We say, *e.g.*, I am conscious of hearing, of seeing, of feeling, of desiring, and so forth. But it is less accurate and less usual to say I am conscious of a noise, of a light, &c., unless we wish to emphasise the certainty of our subjective experience, and then the full meaning of the phrase becomes, I am conscious of hearing a noise, of seeing a light, and so forth. But now hearing a noise, seeing a light, and so on, are "facts of" consciousness; and it is because he is "conscious of" these facts of consciousness one and all that the presentationist calls them severally and together contents of consciousness. But consciousness of consciousness is what is ordinarily called reflexion, internal perception or self-consciousness. Thus it would seem that it is from the point of view of reflexion, which is the psychologist's natural standpoint, that the presentationist speaks of all his facts as "contents," rather than as constituents of conscious life. We come then to the distinction of consciousness and self-consciousness—if that may be called a distinction which as a source of confusion is perhaps without a parallel in the history of knowledge. The history of this distinction is instructive, but would detain us too long. As the terms are now used self-consciousness is but a special though an important case of cognition: it is, therefore, not a conscious state, but only the cognitive element in such a

<sup>1</sup> The presentationist is dominated by mechanical metaphors, or, perhaps, it would be fairer to say by those *quasi*-mechanical facts which certainly form a large part, and perhaps the clearest part, of the psychologist's domain: those for whom consciousness does not resolve into co-ordinate elements are influenced rather by the analogy of life, by teleological conceptions. For such a state of consciousness cannot have fewer constituents than conscious life as a whole, and like life is collectively used.

state. To make the state complete we must add the elements of feeling and action that pertain to this as to other psychoses.

But now we realise the fatal clumsiness of our terminology, for it is through this self-consciousness, which *is* but a part of cognition, that we *know* the whole consciousness to which it belongs. The whole is contained cognitively in what is but a part of itself existentially—much as a man sees himself full length through an image in his eyes. Under cover of the one term consciousness lies the problem of knowing and being in one of its most perplexing forms. Now just because it is not our business to deal with this problem we ought to be free from all temptation so to shape our phraseology as to hide it. When psychology and metaphysics were lumped together and it seemed to be but a question of taste after which of the two the combination should be called, a confusion of standpoints was inevitable.

Whatever be the ultimate conceptions to which metaphysics may lead us, our proximate conception of knowledge of every kind, the conception from which we must start, implies (1) a subject knowing and an object known, (2) a necessary dependence of the subject on the object so far as its knowing goes, and (3) no such dependence of the subject so far as its being goes. We cannot know more than there is: there may be more than we can know. All sorts of qualifications may need to be made if we rise to the supreme generality of metaphysics: absolutely unknown being, *e.g.*, may prove to be an *Unding*; but on that level to which empirical psychology ought to confine itself, at least, as much "relativity" as the above, seems unquestionable. We have next to apply this to consciousness of consciousness as a case of knowledge of being. First, as regards the distinction of subject knowing and object known, we find the sort of antinomy that is apt to characterise ultimate problems. If we identify the two we transcend our empirical conception of knowledge. A knowledge in which subject and object are one is at best but a limiting case towards which we might perhaps conceive ourselves approximating in self-consciousness, and even continuing to approximate indefinitely. But so soon as subject and object are the same, there can obviously be no dependence of the one as regards knowledge, no independence of the other as regards being. If, however, on the other hand, we regard the subject knowing as distinct from the object known; then, in order that this knowing subject may be an object known, we require a second subject or at least a higher grade of consciousness. We seem

committed not only to consciousness of consciousness but to consciousness of consciousness of consciousness, and so on indefinitely. This has been regarded as a *reductio ad absurdum* from Aristotle onwards, and has led psychologists generally, either to shirk the whole question or to incline to the alternative of absolute identity. But whatever may be our speculative preference for an absolute limit as against an indefinite regress, there is surely great force in Kant's doctrine that it is the business of science to abide by the latter. After all perhaps the regress will not be found to go very far.

And now perhaps we may look again at the duality of consciousness: For self-consciousness this duality is a fact of presentation: we are conscious of, that is, have cognition of, the subjective as well as of the objective. But this cognition does not constitute its object any more than other cognitions. What is this duality which we reflectively know? Again, in trying to answer this question we must take care not to prejudice it by raising at the same time the very distinct question: How we can know the subjective? how anything pertaining to the subject can become objective? A recent writer<sup>1</sup> I find foreclosing the whole inquiry by an *a priori* demonstration, that any objectivation of the subjective is *ex vi terminorum* a manifest contradiction. But this is just to repeat the confusion of the psychological and metaphysical above mentioned. A proposition may be true *secundum quid* which may or may not be true *simpliciter*.

Symbolising everything cognised or presented by O, we say (1) that O is always part and never the whole of a psychosis or state of consciousness: the remainder, the non-O constituents, we may symbolise by S, and the whole which they together constitute we may represent as S-O; the hyphen serving to indicate that each is relative to the other. The duality of consciousness is then a name for this relation S-O. The cognition of their duality in self-consciousness or reflexion would be symbolically represented as  $S-\left\{ \begin{smallmatrix} S' \\ O \end{smallmatrix} \right.$ , and the indefinite regress which is supposed to be the fatal absurdity of this view could be represented as a series thus:  $S-O, S-\left\{ \begin{smallmatrix} S' \\ O \end{smallmatrix} \right., S-S'-\left\{ \begin{smallmatrix} S'' \\ O \end{smallmatrix} \right., \&c.$

According to the doctrine that feeling is different in kind from presentation, feeling itself pertains to S and not to O, but the knowledge of feeling like all knowledge pertains to O, that

<sup>1</sup> Natorp, *Einleitung in die Psychologie nach kritischer Methode*.

is to say, knowledge of feeling is not possible in consciousness below the form or stage  $S-\begin{Bmatrix} S \\ O \end{Bmatrix}$ . Similarly of the activity said to be implied in all consciousness: that too pertains to S and not to O and is only known reflectively. And now at length we may try to face the difficulties besetting this view. What immediacy can these subjective elements have if they have not the immediacy of presentations, and if they are not known presentatively how can they be known representatively or at all? As to the first question one can only say they have that other immediacy which is necessary to the immediacy of presentation. All such terms as object, presentation, intuition, apprehension, impression, attention, involve, literally taken, a spatial immediacy, so to say. Why a relation that is actually more fundamental than spatial relations should so invariably be conceived by the help of spatial metaphor is in itself an interesting enough inquiry. But it concerns us more to note that what is prefigured is an actual relation of two distinct things and not a merely analytic distinction within one. The relation of presentation is a real relation—as much so as that of causal efficiency or reciprocal action. But whereas in these *both* the related terms are known, in the duality of consciousness, one of them is *beed*, as Dr. Stirling would say. For mere consciousness what is presented, what affects, is the not-self; what reacts and feels is self, and that is not presented but ‘presented to’. Feeling and willing are being positively and in the concrete; whatever other being there may be, they are the immediate being to which known being is the immediate counterpart.<sup>1</sup>

But now comes the question, how this feeling and active subject, thus antithetic to known being, can be itself known as feeling and active. That this inquiry is not wanting in

<sup>1</sup> To these statements I can see sundry objections. First, they run counter to most of the accepted definitions of sensation. In sensation, it will be urged, there is no object, no presentation of not-self: that begins, at the earliest, with perception. After the term consciousness, sensation is perhaps the most hopeless in all our psychological vocabulary. ‘Recept,’ if it had not already been appropriated to distinguish generic ideas from concepts proper, might have served to deliver us from some of the cobweb of sensation. Anyhow, as a point of method, it seems to me that presentation is the term with the prior claim to definition, and that sensation as ordinarily defined is a very problematic and tentative affair. Again, it may be said that it is all a question of words. I allow this so far as to admit that it is not a question to be settled by mere observation, introspective or other. It is a question, as Whewell would have said, of selecting and explicating the appropriate conception.



difficulty may be gathered from the diametrically opposite conclusions reached; say, for example, by Maine de Biran or Mansel and by Kant. "The one presented substance," says Mansel, "is myself." But in what way presented? "All that is presented through a sense," Kant remarks, "is in so far invariably phenomenal; and an inner sense must either be disallowed altogether, or the subject, which is its object, *can be presented only as phenomenon*, and not as it would judge of itself, if its intuition were pure self-activity, *i.e.*, intellectual. The whole difficulty lies in this: how a subject can inwardly intuit itself. But this is a difficulty besetting all theories alike."<sup>1</sup> In this dilemma the French Reidians and Mansel practically decide for the first alternative: they disallow an inner sense, as by Kant restricted, or at any rate identify—so far as self-consciousness goes—the sensible and intellectual intuition, which he held to be fundamentally opposed. By absolutely identifying the self-knowing and the self-known Mansel (*cf. Metaphysics*, p. 369) finds it superfluous to ask *how* a subject can intuit itself. We don't ask how A is A. Psychology with him passes over into ontology. But then, as I have already said, in such a passage there is a leap. Such duality in unity is as much a mystery as the theological trinity in unity. It stands as much apart from the relation of knowledge as the conception of a *causa sui* from the relation of cause and effect, or that of a *primum mobile* from all the working conceptions of physics. I do not say this objection is to be held altogether and finally fatal; but it is at least serious enough to justify us in trying further.

Kant chooses the other alternative, according to which the I and the Me<sup>2</sup> are not identical. But his inner sense is not only not co-ordinate with his external (though it took him a long time to see this), but it cannot with any propriety be called a sense at all.<sup>3</sup> The advance from consciousness to self-consciousness is not by way of an extended receptivity but by way of intellectual activity. Such activity, however, must be something very different from "intellectual intuition". Our cognition of the subjective approximates to what we may call the noumenal, inasmuch as it is determined by intellectual activity; and though, like all our activity, it depends

<sup>1</sup> *Kritik*, 2te Aufl., Hartenstein's edn., p. 77.

<sup>2</sup> We owe to Prof. James this very convenient simplification: I = Subject Ego, Me = Object Ego.

<sup>3</sup> On Kant's gradual discovery of this difference, see Caird, *The Critical Philosophy of Kant*, i. pp. 616 f.



on receptivity, yet it is only the manner of this receptivity, not the matter of it, with which it is concerned. It cannot then without great inaccuracy be called phenomenal, as that term is ordinarily used of things external, albeit it has the phenomenal taint, so to say, inasmuch as the strictly phenomenal is the indispensable condition of its realisation. This unique character of subjective cognition and the inexactness of the whole phraseology of inner sense is shown by any careful analysis of the consciousness of self. Sufficient merit has perhaps not yet been accorded to Berkeley in this particular, (especially when we take account of the sensational atmosphere in which he philosophised,) for so clearly discriminating between idea and notion and insisting that of self we have a notion but not an idea. How through and through conceptual is self-consciousness may be gathered from its dependence on social intercourse and language: the child has probably a considerable knowledge of other selves and of its own self as an object to them before it can put any meaning into the words, "I am I".

But the real problem of subjective cognition now-a-days has less to do with the notion of self than with the nature of our knowledge of the feeling and activity attributed to it. Even after the notional character of self-consciousness is admitted it could still be maintained that feeling and activity (or attention) are presentations of an inner sense.<sup>1</sup> But the moment this is done their generic distinction from cognitions is surrendered. On the other hand, if they are not presented they cannot be represented. It is probably quite true to say that introspection is really retrospection; but what we retrospectively observe of the subjective is not fading feeling or facts congealed to facts. It is too absurd to suppose that if feeling and activity were in "the field of presentation" at all they could be anywhere but in the focus; that we are too absorbed to regard them while they are present and only take note of them when they are gone. If the feeling agent, *i.e.*, the knower, and the known must be antithetic and distinct, and if consequently direct presentation or representation of feeling and activity are alike impossible, it seems plain that any knowledge we have of

<sup>1</sup> Kant, for example, who between the two editions of the *Kritik* began to see that his inner sense was only very equivocally a sense at all, did not hesitate, some ten years later, to refer the feeling of pleasure and pain to a more inner or "interior sense" (*sensus interior*), at the same time defining inner sense (*sensus internus*) as that in which the body is affected by the mind in contrast to the outer senses in which the body is affected by other bodily things.

them must be in some way constructive or mediate. What little agreement there is among psychologists seems to point that way. The advance from the stage at which the subject merely interacts feelingly with its environment to the stage at which it knows about its feeling and interaction is held to be due fundamentally to the ascertainment of relations between sensations and movements on the one side and the conception of self on the other, which conception becomes itself defined as the process goes on. And a vastly long and complicated process it is, far too long to follow here even in outline. In the course of it, no doubt, new presentations are experienced, such as the various motor adjustments depending on attention, the thrills and pangs, the glows or shivers of various emotional excitements. But there is nothing in any of these to warrant the assumption of either an inner or an interior sense. At the same time—beside the fundamental contrast of sensation and movement—the contrast between the bodily localisation of certain impressions and the external projection of others, the many invariable sequences of ideo-motor action and particularly the observation and teaching of one's fellow-men, are among the materials that make possible this shaping of one's knowledge into inner and outer, with their implication of a centre within as well as of an indefinite universe beyond. But all we know is a circumferential area having neither inner edge nor outer sharply defined or necessarily fixed. Not till this belt has acquired a certain breadth and completeness, so to say, are those relations discerned which yield this constructive knowledge of a central subject towards which or from which all the lines, as far as they are traceable, seem to radiate. Now before entirely discarding this time-honoured figure, which is perhaps not wholly inapt, it is worth one or two remarks. First, the subjective is neither to be represented as a definite sector of the ring nor yet as the inner circle of two concentric portions into which the whole sharply divides. Subjective knowledge is not in this sense more immediate than objective, nor do we obtain it by turning right away from this. Both constitute one experience, though, as said, it is only when this experience is organised beyond a certain degree of elaboration that it becomes self-revealing to the subject of it. The duality of knowing and being is not to be resolved into duality of knowledge. Again, the subject itself is, of course, not adequately conceived as a central point, though certain of its relations may be not unfitly symbolised by such a

figure; as, *e.g.*, its individuality, the contrast of activity and passivity in the incoming and outgoing radii, and perhaps that of knower and known in the opposition of centre and circumference. As regards this last, however, the figure usually resolves into the more concrete picture of the eye with its visual field, incapable of seeing itself, and seeing what is nearest to itself but indistinctly. No doubt, having made a beginning, we can go on and advance in this "thought-knowledge" about self as we advance in "thought-knowledge" about not-self. But the point is that, however far such knowledge is extended, it will not thereby become "sense-knowledge": it advances by the discernment of new relations, not by the acquisition of new sensations. If feeling and activity are presentations they must be so apart from the advance to self-consciousness; in fact, an inner sense must be primordial. And as it is nowhere denied that feeling and activity are constituents in every conscious state, we are brought practically to consider what I have ventured to call the presentationist position. It will be best to begin *de novo*, and work up from this new side to our present question as to the character of subjective knowledge.

The chief difficulty which the presentationist has to face is the implication of the conscious subject, and of its activity in consciousness. This, as we have seen, he tries to minimise by (1) transferring to what he calls the contents of consciousness everything commonly ascribed to the subject in the way of act or change, nay, even such attributes as unity and continuity; and (2) leaving to some other science to make what it can of the *form* of consciousness; generally with a certain irony, much as western learning might leave the eastern to study the *pillars* of the earth, while reserving to itself the study of gravitation. One prominent exponent of this view, by way of illustrating the mathematical rigour with which this division into content and form is intended, refers to the simile of the eye and the field of sight mentioned a little above. In actual sight the character and changes of the field depend in part at least on movements of the eye: not so with the eye of the mind. Here "it is not the eye that closes, but the objects that disappear: not the eye that variously accommodates, but the features of objects that now advance into distinctness and now retire into obscurity. It is not the eye that wanders hither and thither, but now one object is in the focus

and now another." All is determined by the objects seen, nothing by the eye that sees—except the seeing. Now it must be frankly allowed that this latest analysis of mind and the delimitation of the province of psychology that follows from it seem at first sight to promise enormous simplification, and to be besides but the logical outcome of the whole Herbartian movement. If it was a merit to reduce the multitude of faculties to the single faculty of apperception or attention, it is surely a crowning achievement to banish Faculty altogether. For, whereas faculties could at least be compared *inter se*, Faculty absolute is comparable with nothing. Again, since the special faculties were severally superseded by explanations based solely on the properties or relations of presentations themselves, we have now these alone outstanding as data for positive investigation, and the notion of subjective faculty or activity, (whether called consciousness or apperception matters not,) since it applies alike to all these data, can specially affect none. Even if anything could be known about it, empirical psychology could safely leave it aside. Psychical phenomena or presentations or "whatever there is consciousness of" can now be completely characterised by quality, intensity, duration, complexity, and serial order, and can be correlated with physical phenomena as readily as shadows with the shapes that project them. So correlated they are amenable to experiment and to measurement and mental chemistries or mental physiologies become sober realities.

Many of those who uphold this conception of psychology seem to imagine that whoever demurs to it must either cling to some unverifiable, "metaphysical" prejudice or at least deny that all psychical changes have physical concomitants. That objection may be taken on such grounds is likely enough. But there are other grounds of objection which the presentationist cannot so easily ignore. First of all he overshoots the mark: in striving to simplify psychology he really abolishes it altogether. He has pushed back the standpoint from which he set out, until physical facts and psychical facts are no longer diametrically opposed in aspect but both are brought into one view. The old distinction of inner and outer, or, as it has become now-a-days, of "concave and convex," is for him no longer absolute. By rising above the plane he finds the two standpoints can meet in one. No doubt they can; but what does rising above the plane mean? Obviously it means forsaking science for speculation, soaring into "the cloudland of metaphysics". And those presentationists who are willing to call

their doctrine materialistic tacitly admit this ; for materialism in psychology as much transcends the facts as idealism would in physics. But confining ourselves to what is directly intended, it will be enough to say that they treat the psychological standpoint as if it were essentially the same as a physical standpoint. The mistake is one of method in the larger sense : in other words, presentationism is epistemologically absurd. Now it is worth remarking by the way that, ready as these writers are to defer in general to the Theory of Knowledge, it appears never to have occurred to them to ask whether their vaunted simplification is logical in the higher sense or not. It seems to me that it is not thus far logical, however much it may commend itself as such to those who have no sense of philosophical orientation. The start is apparently made from the natural or object sciences. The chief data of these sciences come to us by way of sight or hearing or touch, and as they come are entirely disparate. Now we can perfectly well conceive the problem to arise as to the means by which these severally incomparable groups of facts might be related ; and the solution to be found in eliminating the "form" peculiar to each. So it may be supposed were obtained, first of all, Physical Optics, Physical Acoustics, &c. ; and finally General Physics. Into the former there enters nothing due to seeing or hearing, and into the latter nothing of sense at all. Now "the contents of consciousness" or presentations are a group of facts disparate with all beside. Why not proceed as before : eliminate the form of consciousness or the inner sense, and then it will be possible to correlate these objects with the rest? Such a proposal seems on a par with projects for economising the currency by abolishing bullion altogether or for increasing the power of the lever by reducing the short arm to zero.

In one respect certainly the procedure of the psychologist and that of the physicist are alike. The material extended world is the object of the one as the individual mind is the object of the other ; and each keeps himself distinct from his object. The physicist may be colour-blind or left-handed and have his "personal equation," but none of these enter into his science ; and spite of the much greater difficulty of eliminating the personal in this sense, the psychologist is a psychologist, and not an autobiographer, only in so far as he keeps clear of it. But the physicist does more : he eliminates not only the personal but the mental altogether. So far the presentationist will agree ; and he will probably remark : Yes, our business is with the phenomena of mind as theirs is with the phenomena of matter. The remark seems clear,

but it is really confused. The word phenomenon does not mean the same thing in the two cases. There is not a genus phenomenon divisible into the two mutually exclusive species, mental and material, as the latter may be divided into optical, acoustical, and so forth. Evidently not, for—if we must needs speak of mental phenomena at all—then the physicist himself in converse with material phenomena furnishes the phenomena or rather the phenomenon of the psychologist. This brings out another point obscured by the common parallel of psychical and physical. The material world is conceived but not known as a single whole, a universe. The universe, as Kant would say, is an idea of the reason. It is left to poetry or to speculation to contemplate the universe dramatically as a concrete unfolding; for the sciences are forced to deal with it piecemeal. The phenomena of the physicist's chief generalisations are abstractions: they have no individuality, no dates, no places. His laws are like single threads in a vast tapestry, which are identified by their colour or their material. He lights upon them here and there as a patient fly might do, and thus he knows the stuffs and the texture but not the pattern, the plurality and the continuity but not the unity nor the meaning. Now, we cannot talk of mental phenomena in this wise. The mind is not stuff nor part of a general continuum. Whereas for the physicist the macrocosm is an ultimate ideal, for the psychologist the microcosm is the prime reality. He reaches his elements by analysis, not his whole by synthesis. It is not Mind, a word which in psychology is unmeaning, but the individual mind that he studies; and every fact within his range is concrete, has a date and a place. The language the physicist uses of his phenomena is generally of the form: There is this or that, *a*, *b*, *c* or *d*, and the psychologist in talking of him can say: *There is* such or such a mind. But he cannot bring out the characteristics of the psychological standpoint by saying: There are such and such presentations or feelings or movements. To this end his statements must (and always do) take the form: *He has* such and such presentations, feels thus or thus and acts in this wise or that. Now this I take it is the "form of consciousness," and to eliminate *it* is to ignore the concrete experience of the individual mind, and to abolish what is the characteristic of psychology altogether. But it is worse. Since the psychical standpoint—the standpoint, that is to say, that the psychologist studies—is the real, if not the logical, presupposition of the physical, to resolve it into the latter is tantamount to saying that there are phenomena



that appear to no one, objects that are over against nothing, presentations that are never presented : in short, in the oddest of all ways, to say that there are only things *per se*. Perhaps the presentationist may think to escape this distastefully metaphysical outcome by referring us again to the pure form of consciousness which is his "absolute presupposition". But a form that effects nothing is nothing : "There is consciousness of" differs in no assignable respect from "There is," when consciousness is completely extruded as wholly unknown from the content that is.

In fact, of course, it is not thus extruded. The so-called content of consciousness itself reveals the so-called "form". But some of our modern psychologists, satisfied, I suppose, with what they have done for this in putting it out of harm's reach, feel at liberty to explain away all the traces of it they find within the known content. In this they make common cause with the older sensationalists or associationists, whose lineal descendants they are. The blundering and incompetence of these doctrines have been so often exposed that it would be superfluous to dwell on this the second objection that may be urged on the score of method. It is here assumed that the whole of self-consciousness is knowledge, using the term widely to include, if necessary, both true and false knowledge. The mistakes and difficulties of psychological observation may suffice, if proof be wanted, to show that self-consciousness does not consist in the mere reception of presentations but in the discernment of relations : in other words, that, in the presentationist's phraseology, it consists of associative combinations of presentations ; or, as the teleologists would say, it is intellectual not sensible. Yet again, once grant the gradual building up of the conception of self, and then the fact that this conception enters into every deliverance of self-consciousness leads to the same conclusion. Self-consciousness is thus in its logical character and its psychological composition comparable with objective knowledge, using the term as widely as before. In both we can distinguish between meaning and mere psychical structure, as we can between the import of a proposition and the strokes or sounds of which it is composed. But it is obvious that we cannot analyse this structure indefinitely ; and when it ceases to be possible we have simple presentations, or what we provisionally assume to be such. Now comes the strange perversity of the presentationist. Where psychology and physics differed, *viz.*, in standpoint, he identified them ; here, where they are alike, he treats them differently. He allows the meaning to hold in objective knowledge, but



ignores everything but the etymology in subjective knowledge. The psychologist is, no doubt, in a unique position: it is part of his business to analyse to the uttermost, but it is only part. So far he is comparable to the scholar who is both phonologist and exegete in one: the presentationist would then resemble a commentator who in his zeal for thoroughness should resolve Homer into an arrangement of gutturals, dentals, labials and the like. Knowledge precedes science in psychology as elsewhere, and what we roughly call our common-sense conceptions concerning the subjective must like those concerning the objective stand or fall according as they do or do not make things intelligible. What they are made of—in the sense of psychological analysis—is then beside the question. But oddly enough the view seems to prevail that nothing is to be valid in psychology but what is sensory. The subject and subjective activity are set aside as “popular assumptions” due to our common ways of talking about mental events, or as temporary hypotheses which “modern” analysis shows to be superfluous. Popular they certainly are just as other categories or fundamental conceptions—Substance, Cause, or End, for instance. But hypotheses they are not according to any accepted meaning of the word. Before any one is entitled to dismiss them on this plea he is bound to show that he can do without them. This no presentationist, sensationalist or associationist has ever done, and I think it can be shown that he never can do it because the attempt is essentially absurd.

Let us examine for a moment one of the latest of these attempts, one that seems to have found especial favour among prominent teachers both in England and in America—I mean that of Dr. Hugo Münsterberg. The business of empirical psychology according to him is to describe the spectacle presented to some unknown, impotent, and apathetic spectator, who is to be called the subject Ego, albeit it is false to attribute personality to it. The constituents of the spectacle consist, of course, ultimately of sensations; and at first there is little to note except their promiscuous coming and going. But as all have to leave traces or memory-images behind, stable associations are gradually formed, and so the spectacle becomes one of a continual interplay between a varying environment and a comparatively fixed central group. This group is the Me, objective or personal Ego, to which it is just as false to attribute consciousness as it was to attribute personality to the subjective Ego. The Me-group is made up, first of all, of organic and

muscular sensations, and then of such memory-images as can sustain themselves without direct resuscitation by new arrivals. These free images presently constitute a fresh play within the Me ; which henceforth includes a sort of pictorial Me with a pictorial environment. When things have developed thus far it continually happens that some change in the environment, such as was followed in the past by certain muscular reactions, occurs with the like result again. But now such a change leads to a rehearsal, so to say, in the pictorial sphere, of what is about to happen actually. The representation of the muscular movements arises before the actual movements have had time to supervene. The old copy thus regularly preceding the new original is taken for the cause of it. This is the process called volition. The representation of the movement is all that answers to the supposed "feeling of innervation" or sense of effort. And when it is said that certain psychical changes unaccompanied by bodily movements are due to the activity of the conscious subject this only means that such changes are accompanied, either really or ideally, by those feelings of strain that have been presented times innumerable along with bodily actions. "Where the *illusion of a conscious activity*, set over against the content of consciousness, arises there is really nothing for experience to lay hold of except (1) that a group of sensations of strain take up their position within the field of consciousness, and (2) that certain [other] changes in the field make themselves observable." So much for subjective activity. The case of feeling is still briefer. Those changes in the environment which the biologist and the physiologist understand to be salutary stimuli produce reflex expansions of the body ; those tending to injure the organism, on the contrary, reflex contractions of the body. By such means the body is brought nearer to objects of the one class and removed further from those of the other. The sensations due to these reflexes become associated with the originating stimuli perceived at the same time and constitute for these their pleasure or pain characteristics. As the reflexes produce contrary bodily acts so these sensations have contrary qualities ; and as they pertain entirely to the body, the basis of the Me, which turns towards the pleasurable and turns from the painful, the close connexion of feeling and action is manifest without more ado. In this association these sensations have nothing objective about them ; indeed, they forfeit all their presentational independence and become simply an index of the "*eudæmonistic worth*" of other

sensations, so that we say that such or such "a content is apprehended with pleasure or with pain".

The first thing to ascertain concerning this exposition is whether the author has succeeded in keeping his conscious ego clear of all suspicion of meddling or interest, and in keeping his personal ego clear of all implication of consciousness. The reader's suspicions will doubtless have been aroused at two points—at the mention of "*the illusion* of an activity of consciousness," and again at the mention of "*a measure of the worth* of sensations". The conscious ego, since it is not active, ought surely to be free from *illusions* about activity, and in the personal ego, which is not conscious, it ought to be difficult to find any hint of consciousness. Given a landscape painting and a percipient confined to space of two dimensions, could the statement arise that here is the illusion of a space of three?

And what are we to make of the "hedonical worth of sensations"? The reader must kindly submit to a little more detail. First of all we are required carefully to distinguish between (1) the localised muscular sensations of advancing and withdrawing our bodies or limbs, and (2) the sensations that arise whenever such movements occur as reflexes. The former, it is allowed, are definite objects, and as such "emotionally indifferent," but the latter are "the determining measure of other objects, what is called feeling-tone". This very "modern" psychologist then proceeds to complain that "the recent lively discussions in Germany, England, and America concerning the material basis of the feelings, strictly speaking, referred always to the content of the feeling co-ordinate with sensation and never to the state itself of the subjective attitude, *viz.*, pleasure and pain". In this censure many of us will in the main concur; if not always deserved, it is deserved very often. But it is a surprise to find this Saul among the prophets. How in his theory, where all is sensation, can there be an element not co-ordinate with sensation? The laws of association may perhaps explain how a particular presentation becomes at length inseparably merged in a complex, and in that way ceases to be independent. But can they explain how such particular sensation can acquire a wholly new kind of independence and come to measure the worth of other sensations or constitute the attitude in which they are "apprehended"? And are we to assign this "subjective attitude" to the impersonal subject that passively looks on or to the unconscious Me-object that is but a group of sensations?

Receptivity at all would be as contradictory to the latter as partiality to any special content would be to the former. On these perplexing questions the following passage from Münsterberg's latest work may throw some light: "To the impersonal consciousness there is given a system of contents that differentiates—just according to the way in which it is regarded—into a physical world and an individual psychical world. It is the former from the quantitative standpoint, the latter from the qualitative. The idea of the Ego-personality also differentiates in the impersonal consciousness into this double content. How is this fundamentally diverse contemplation possible? Solely through certain contents of the impersonal consciousness, which—it must be owned—play a quite peculiar double part. For they can *either* be apprehended, like all other contents, merely as definite occurrences. Then there results a manifold of contents that are altogether co-ordinate, absolutely incommensurable and simply unlike—a system of qualities without space, without time, without degree, without substance, without cause. Or, on the other hand, those peculiar contents are *not* apprehended as independent, co-ordinate occurrences, but become for the impersonal consciousness the standard, the medium of comparison—in short, the worth of the remaining contents. They then forfeit their independent content, cease to become isolated objects of consciousness; but the world of the remaining content thereby gains order" of various kinds. The sensations that play this peculiar double rôle are, it seems, those that arise through muscular movement or strain. "On movement mainly depends the space value; on strain, the intensity value; and on the products of extending and flexing, the pleasure-pain value." We are, of course, here concerned with this wonderful piece of extempore speculation only so far as it bears on this last kind of order and worth.

Now it may be safely assumed that our experience answers exclusively to the second of these worlds—the world of order and worth. The first is nothing but the presentationist hypothesis, the *ne plus ultra* of psychical atomism. Again, we have not in the first instance to deal with the statement that feeling, if it could be isolated as an independent presentation, would turn out to be one of the sensations produced by reflexes expanding or contracting the body. This the author has to prove, and he has attempted to prove it by experiments on himself. What immediately interests us is simply the ample admissions Münsterberg incidentally makes, *viz.*, that in the world of

order, pleasure and pain are never independent or isolated presentations, are not co-ordinate with sensation, and not apprehended like the other contents of consciousness; but are themselves the subjective attitude in which these contents are apprehended, are *for the impersonal consciousness* the standard of worth by which they are compared and through which the world comes to contain "gewollte, gewerthete Dinge". It interests us further to note that Münsterberg has not been able to adhere to the distinction between the conscious but impersonal and the personal but unconscious Ego with which he sets out. The very phrase "impersonal consciousness," with its implied contradistinction from personal consciousness, shows, as was maintained above, that he has identified the psychical standpoint with the point of view of knowledge in general. This is borne out by the fact that he places all kinds of order on a level: temporal, spiritual, substantial, causal values figure alongside of values that have for their standard feeling and will. Even this could be allowed if at the same time his personal Ego were endowed with a "personal consciousness," so that it could be said the world contained "*gewollte und gewerthete Dinge*" for it. But then this would resolve his "impersonal consciousness" into the psychologist at his post of knowledge, and the whole difficulty of the psychical standpoint which the psychologist contemplates from thence—all the puzzle about the I and the Me—would arise again.

"Modern" psychology then is bent—and often avows that it is bent—on reducing "all psychical life to a mere looking on at physical brain-processes"<sup>1</sup> from another side: its psychology is simply brain turned inside out. The anxiety to resolve feeling and activity into sensations might lead one to suppose that there was ample physiological warrant for such an enterprise. Whereas it is notorious that no psychophysical problems have produced such a crop of hypotheses or occasioned such keen controversy as have the two questions concerning the physiological concomitants of feeling and attention. And in the case of feeling, at all events, the evidence is dead against classing it as a form of sensation. No special end organs, no special nerves, no special centres have been found for feeling, spite of much zeal spent in the search. On the other hand, the prevalent teleological explanations of feeling are, so far as they go, so many refutations of the presentationist. The notion of stimulating a centripetal nerve and the notion of furthering or hindering

<sup>1</sup> Cf. Münsterberg, *Beiträge*, i. p. 22.

life are very far from running on all fours. Because of the difference between them, we can talk of a pleasant or painful taste or sound but not of a green taste or a yellow noise. Very similar remarks apply in the case of activity, though possibly the application is not so obvious. Had Wundt succeeded in establishing the existence of an organ of apperception *within* the brain, I for one should feel that he had so far put an end to his own theory of psychical activity and to every other. Apperception would then be on a level with walking or eating and Gassendi's *Ambulo ergo sum* as good as Descartes' *Cogito ergo sum*. So far as acts are but definite movements, so far they must involve definite structures; and so far too their psychical concomitants, when they have any, must be presentational. But a brain centre for attention is as preposterous as a special organ for life would be; and all attempts to find one have signally failed.

Psycho-physics seems to warrant us in saying that differentiation of presentations is the psychical parallel of differentiation of nervous structure, whereas psychical activity or life seems to be the concomitant of the more or less intense working or functioning of this structure, and pure feeling a function, so to say, of this function. Even in a machine we distinguish mechanical arrangement from motive power and efficiency; and in some machines the mechanical arrangement includes gauges and work-indicators which register the power and the good or bad working of the machine in action. I do not mean by this to imply any useful analogy between psychical life and a more or less automatic machine at work: but simply to illustrate by another instance the difference of category between presentations on the one hand, and conscious life, and feeling on the other. In the machine, in the organism, in mind, the fundamental conceptions are inter-dependent, in no case are they reducible to one.

It will be agreed on all hands that the theory of presentations is the one part of psychology that is comparatively clear; in which important generalisations, such as the laws of association, have been established, and in which instructive correspondences can be found with the underlying physical phenomena. The psychologist has therefore every motive to adopt presentationism, *if it is adequate to the facts*. Now I think it will be again agreed that presentationism *is* adequate to (say) nine-tenths of the facts, or better, perhaps, to nine-tenths of each fact. I therefore see no reason why it should not be made into a more or less independent branch of psychology, as neurology, for example, is a more or less distinct department of physiology. The mistake of the



"modern" psychologists is that they either snatch at a hasty simplification by mistaking the nine-tenths for the whole; or worse--like Münsterberg, try to bring what they can of the outstanding tenth under the common rubric, presentation, and to banish the rest from the region of the knowable altogether.

On the whole then we seem justified in concluding that presentationism is not successful in its attempt to evade the difficult question concerning the character of subjective knowledge: certainly it gives us nothing that can be called a solution of it. I hope to be allowed at an early date to take up the problem anew and independently. Meanwhile there is only space to urge one point, the perfectly unique character of this subjective knowledge. This is ignored when reflexion is regarded as co-ordinate with sensation, inner sense without outer sense; when the term "phenomenon" is applied to mental facts as it is to material facts; or when the relativity of subject to object is confused with the relativity of object to object. The position taken up by Descartes and Locke, *viz.*, that we have a clearer and more certain knowledge of our own existence than of the existence of external things, and Kant's position that internal experience is only possible through external, seem both true, although Kant maintained the second in refutation of the first. But they remain unmediated; and so long as psychical facts are referred to one unknown *x* just as physical facts are to another unknown *x*, it is difficult to see how they ever can be mediated. As with other negative terms, so with this one, "unknown"; it implies both an unknown that is knowable and an unknown of which there can neither be knowledge nor ignorance. Again, knowledge is said to be either sensible or intelligible, presentative or constructive. If so, there may be an unknown from the point of view of sense that is not an unknown from the point of view of understanding, and this unknown to sense may or may not be an unknowable for it. Now, what I am disposed to maintain is that the Ego is both an unknown and an unknowable for sense: the Non-Ego partly an unknown but not an unknowable, so far as the possibilities of sensational *rapport* are unlimited. The "I" cannot be presented to itself because it *is* itself: the presented, *ex vi termini*, is the other. When we pass to intelligible knowledge, we have as regards the Non-Ego that shaping, relating, in-forming of the matter of sense that constitutes phenomenal experience in the Kantian meaning of the words. In this process I am inclined to believe the subject comes to know itself intelli-



gibly; the outward advance is an inward revealing. If it be said that such knowledge, since it lacks appropriate sense-particulars, must be unreal and empty; this, I should urge, is to confound the Ego with the Non-Ego, to ignore the unique character of subjective knowledge and so far to beg the whole question. Just because the relation of subject and object is not, so to say, a commutable relation, is it reasonable to expect the knowledge of the one to differ importantly from the knowledge of the other. Phraseology like that of Hamilton's—"The Ego and the Non-Ego are given by consciousness in equal counterpoise and independence . . . in absolute coequality"<sup>1</sup>—is mere phraseology, but very misleading. To ignore this difference seems to be the mistake of presentationism; but it must be owned as a difficulty besetting, as Kant urges, every theory alike.

<sup>1</sup> *Lectures on Metaphysics*, i. p. 292.

## V.—DISCUSSIONS.

### ON PROFESSOR JAMES' DOCTRINE OF SIMPLE RESEMBLANCE.

In Professor James' *Psychology* (vol. i. p. 532) there is a doctrine and an argument with regard to simple Resemblance. Both the argument and the doctrine, I venture to think, are open to criticism, and perhaps some discussion on this point may prove of value. I would much rather express my general admiration for Professor James' brilliant work. And, since the argument, if not the doctrine, is derived from Professor Stumpf, I am sorry again to criticise a writer whose book on Space, years ago, taught me much. I have thought it better to confine myself to Professor James' statement.

There is such a thing, he holds, as simple Resemblance.

"Any theory which would base likeness on identity, and not rather identity on likeness, must fail. It is supposed perhaps, by most people, that two resembling things owe their resemblance to their absolute identity in respect of some attribute or attributes, combined with the absolute non-identity of the rest of their being. This, which may be true of compound things, breaks down when we come to simple impressions."

We seem bidden here to make a choice. We must either accept resemblance between what is simple, or we must hold:—

"That the difference between two objects is constituted of two things, *viz.*, their absolute identity in certain respects, *plus* their absolute non-identity in others".

Now I wish to point out at once that this alternative seems incomplete. A man may be sure that resemblance between what is quite simple is quite unmeaning; and yet he need not believe that the one alternative to "simple" is "composite," if "composite" means made up of separable parts. The view, that sameness and difference are everywhere inseparable aspects, most certainly exists. But its existence is not included in the dilemma in which the argument consists. And, in the second place, while holding resemblance, not indeed to *be*, but to be based always on, partial identity, one need not in consequence hold that this identity is explicit. If, that is, in things before my mind, which to me seem like, I do not distinguish, and perhaps could not specify, the identical point, this does not prove that no perceptible identity is there. But on these false assumptions Professor James' whole conclusion seems to rest.

The arguments employed make use of the instance of a series. Such an instance entails this very grave disadvantage. One cannot fully deal with its complication unless one attacks the

general problem of the unity and order of a series. And to touch such a difficult question by the way is hardly possible. Certainly if Professor James' view of resemblance got rid of this problem, the inconvenience (he might fairly urge) lies all on one side. But this, I imagine, can hardly be said to be really the case. I must therefore warn the reader that the instances, used in the arguments, involve a serious and (so far as I see) an irrelevant complication. I am hence forced to treat merely that part of them which seems to me to be essential.

I. The first argument (I state it in my own way) is this. Take several sensible qualities which form a series. These qualities may have resemblance without identity. For, if identity, then an identical part; and, if so, then a part which can be specified. In at least some cases one is unable to specify the part, and, therefore, so far, there is no identity. Hence the resemblance is simple.

This argument appears to be thoroughly unsound. Resemblance, I take, not to *be*, but to be an impression based upon, experienced partial identity. This, however, does not involve a perception of the identity, as such, and discriminated. I may call things alike or different, and only afterwards discover the point which impressed my mind, and on which my judgment was founded. This is common experience, and, so far as it goes, is adverse to the assumption that what I cannot distinctly indicate, is, therefore, absent or ineffective. And then, again, some sensations seem to possess a common feature. They have, to me, a general character, of which I can be vaguely aware, though I cannot isolate it, or in any way (as we say) "bring it out". You cannot, *e.g.*, point out what general colour is; but, on this ground, to deny that particular colours have for your perception anything in common appears not reasonable. "Yes, but," I may hear, "you have not considered the series. The colours are not more or less alike as being colours. They are more or less alike, for example, in being darker or lighter. Will you not deal with that point?" Well, I should have thought that darkness and lightness most assuredly were characters of which we are aware; and so, again, with bitter and sweet, and high and low, and dull and sharp, and (when you come to space) with up and down, or right and left. And to tell me that these characters in and for my mind do not exist, because I cannot make them explicit and distinct, appears quite arbitrary. And Professor James, it seems to me, is himself concerned in denying such a doctrine. For how can we have a consciousness of uniform direction (p. 490), if there is not some one element common to all the degrees? How are we to speak with any meaning of "more" and "less," if it is to be a "more" and a "less" of *nothing*? To choose the instance of a series, in order to disprove identity, was, I venture to think, indeed suicidal. You may, perhaps, urge that we have a series of resemblances, and that in this resemblance in the end

consists the identity. But the resemblance, I reply, is not resemblance at large, or in general; for the series, we are agreed, has a particular direction. It moves to more or less of high or low, or soft or loud, or light or dark, or sweet or bitter. But a particular kind of resemblance, degrees of which make the unity of a series, seems to me to imply resemblance in and through a particular point. But, if so, with that we have a resemblance based on identity. Professor James has scarcely made it clear how he would deal with this obvious reply to the first argument. And I do not think he has supplied any adequate information at all as to the unity of his series. How far this information is supposed to be given in Chapter XXVIII., I am unable to say.

II. The second argument I must quote in full as translated from Stumpf.

"We may generalise: Wherever a number of sensible impressions are apprehended *as a series*, there in the last instance must perceptions of simple likeness be found. *Proof*: Assume that all the terms of a series, *e.g.* the qualities of tone, *c d e f g*, have something in common,—*no matter what it is*, call it *X*; then I say that the differing parts of each of these terms must not only be differently constituted in each, but must *themselves form a series*, whose existence is the ground for our apprehending the original terms in serial form. We thus get instead of the original series *a b c d e f . . .* the equivalent series *X $\alpha$ , X $\beta$ , X $\gamma$  . . . &c.* What is gained? The question immediately arises: How is *a $\beta$*  known as a series? According to the theory, these elements must themselves be made up of a part common to all, and of parts differing in each, which latter parts form a new series, and so on *ad infinitum*, which is absurd," p. 533, note.

This is the argument which I presume contains the abstract principle, and for myself I cannot call it "conclusive" or even "acute". It is a dilemma based (if I understand it rightly) on a vicious alternative, and a dilemma certainly not reduced to its simplest form. I will endeavour to state its principle.

A thing is simple or else composite, and, if it is composite, its parts in separation retain each its own proper character. Resemblance hence, if composite, is made of two parts, identity and difference, and these parts in separation, and taken bare, must still be identity and difference. Otherwise resemblance must be simple.

Now in certain cases of resemblance try to find the difference which is nothing but bare difference. You find only a difference which still contains some part of the identity. The attempt to get rid of this identity, and to bring out the difference bare and pure, can never succeed. And  $\therefore$  difference is not separable, and  $\therefore$  resemblance is not composite. And  $\therefore$  it is simple, Q. E. D.

Now apply—if you think it worth while—this principle to the concrete instance of a series. If the steps of a series are not simple, you must be able in each case to separate the difference

and the identity. And the differences themselves clearly must not have any serial character. For, if so, they would contain identity, and not be pure differences. They would be the series itself over again, and not the bare differences of the series. Thus in a series *ex hypothesi* the constitutive differences (if they exist) *must be* serial, for otherwise we are left with bare identity, and the series has vanished. But if, on the other hand, the differences *are* serial, still the series is gone, because its differences now do not exist. They are taken in connexion with and not apart from an identity; that is, they are not pure differences and so not differences at all. But the effort to find pure differences leads to the infinite regress and fails. Therefore the differences do not exist; and therefore the steps of the series (and I suppose the series itself) are simple. Therefore resemblance must be simple,<sup>1</sup> Q. E. D.

Now if the object were merely to disprove the view that resemblance consists of two "parts," would it not be better simply to urge that identity and difference, if so taken apart, have each forfeited its character? That is the way of disproof which I should have thought was as plain as it is old. And then to argue from the proof that resemblance is not thus composite, direct to the conclusion that therefore resemblance is simple—is (I should have thought) to offer us an equally plain and familiar fallacy. Hence, probably I have not understood the argument which has gained Professor James' applause.

I am myself better acquainted with this dialectical way of reasoning when used to arrive at a very different result. I know it better when employed as a means to prove that we have not separable parts, but inseparable aspects. But then it has not been picked up and applied for one particular end, but has been worked systematically and in all directions. Professor James would be invited, *e.g.*, to exhibit a simplicity which was barely simple and not qualified, at all or in any way, by complexity. And then the same infinite process would be forthwith set up. But as this is all the common property of philosophical students, I must once more presume that I have not understood what, as I understand it, has no value. But I doubt if the fault can be entirely on my side. And with this we may perhaps pass from Professor Stumpf's dialectical argument.

At any rate, I may be told, in fact there *are* simple impressions,

<sup>1</sup> I have here perhaps proved too much, but this may be all the better. So far as I see, a dialectical argument, the same as Professor Stumpf's, might be used to destroy Professor James' view of a series, if, that is, for him, in any sense, the perception of a series contains a common element and a diversity. As however I have no clear statement as to what Professor James understands by the unity of a series, I cannot offer a criticism which would have to be conjectural.

and these decide the case. What precisely they would prove and disprove, if they *were* anything real, would be a rather large inquiry. It would be a question certainly not confined to one special problem in psychology. But as this matter is (if I may say so) somewhat old ground with me, I may perhaps refer to what I wrote some years ago. I had been urging that association by Resemblance could be in all cases explained by Redintegration. And I then went on to say:—

“It may be objected, in the first place, that, if the sensation is simple, this theory will not work. I admit it, and I should be sorry if in such a case it *did* work. I would rather that any theory, which I adopt, did *not* explain impossibilities. And that any actual presentation should be simple is quite impossible. Even if it had no internal characters, yet it must be qualified by the relations of its environment. And this complexity would be quite enough for the purpose.”<sup>1</sup>

Simple impressions, in short, are mere abstractions, falsely taken to be facts. And I venture with great diffidence to add that this elsewhere seems to be the view held by Professor James himself. By simplicity he on other topics appears to mean a character which excludes not diversity, but only separability and partition. A whole in this sense would still be simple, however complex it might be, so long as it were integral, and contained inseparable diversities. But, if so, Professor James' argument against identity bodily disappears. It holds as a disproof only of *one* untenable view of identity. And, if so, obviously the further dilemma with its conclusion is vicious.

There is a view (Professor James must be well aware) which holds that identity and difference are complementary aspects, that the one aspect may be emphasised here, and the other aspect there, but that an attempt to isolate them leads everywhere to an infinite regress. And, of course, this view insists that identity and difference depend always upon content. They are both—to use Professor James' expression—“qualitative,” or else nothing.<sup>2</sup> Now certainly a view may exist, and yet be so contemptible as to be treated fairly as non-existent. But then a man, who holds that view, is curious to know something of the ground for such contempt, at least in the case of a writer whom he has been led to respect. And, therefore, I turn for further information to Professor James.

“The vanishing of all perceptible difference between two

<sup>1</sup> *Principles of Logic*, p. 307. I would venture to refer the reader to the rest of this discussion on Resemblance.

<sup>2</sup> Identity can be taken *also*, in some cases, to involve continuity, but here qualitative sameness is, of course, still essential. Suppose it gone, and then see what identity is left. And mere continuity itself—does not that in the end imply an identity of content? Where otherwise lies the unity of temporal duration?

numerically distinct things makes them *qualitatively the same*, or *equal*. Equality, or *qualitative* (as distinguished from numerical) *identity*, is thus nothing but the *extreme degree of likeness*," p. 532.

Well but *of course* we want to know if likeness implies any difference—Yes or No—and again further if an *imperceptible* difference will do. We want to know this, because the extreme degree of likeness, if difference is necessary, will surely not be likeness at all. And, if there is to be *no* difference—I wish Professor James would help me to answer the question, how things in that case can be distinct. Because suppose (as I cannot) that things distinct possess no other difference in quality, yet it seems to me that you must either qualify them by their relations or not. It must be Yes or No—which you please—but, so far as I can perceive, not both at once. If it is Yes, I can see no way to deny that the things are now *perceptibly* diverse. If it is No, I cannot understand, for the life of me, how *they* are now different at all—at least to human beings. In short, a distinction without any difference, and a series involving degrees but degrees of nothing—are to me hopeless difficulties. If these things are plain to Professor James, I cannot believe it would be a misemployment of his powers to make them plain to us others—for I need not say that I am not alone in my unwilling blindness. And, if I have fallen myself into some vicious dilemma, I have been waiting for years for some kind hand to help me out. But, if again a psychologist is not called on to vex himself with these idle problems, then perhaps also he need not entangle himself in dialectical subtleties, which, if they are good at all, seem only good when one carries them through. But who am I that I should dare speak to Professor James of the dialectical method?

I should like to end this Note with two or three remarks. I would plead first that, if it has seemed unduly long, the issue involved is one of very great and wide-reaching importance. And next with regard to the perception of a series I would repeat that I have not attempted to explain this in passing. It is a problem in any case delicate and difficult, but, if we once discard identity, then I think much worse than difficult. Our one chance lies in maintaining the vital, the inseparable, connexion at every point between identity and difference.<sup>1</sup> But I certainly cannot end without another expression of my great and sincere admiration for Professor James' work. If it is not free (and how many books are free?) from lapses, those lapses leave its level something very much above the common.

F. H. BRADLEY.

<sup>1</sup> And suppose that we find that a certain perception is inexplicable and ultimate. Are we from this to conclude that it is therefore simple? If in what is ultimate we find diversity of aspect—where is the inconsistency?



## PROF. BAIN ON PLEASURE AND PAIN.

Any psychologist who offers for consideration a theory which is new in matter or form, must be gratified to discover the impression made by it, upon a veteran like Prof. Bain: the critical remarks appended to his articles on Pleasure and Pain (*MIND*, N.S., No. 2) doubtless give such impression of the theory I have defended. In the interests of a clear understanding of the theory in question, I think it best to say a few words in explanation of the objections raised by him. I shall consider his sections as numbered from pp. 182 to 187.

§ 1. This section calls for little remark, as we are in substantial agreement throughout, although some of Prof. Bain's statements would have to be put in different language to fall in line with my notions.

§ 2. The reader will note that Prof. Bain agrees that "there is no necessary contradiction or contrariety between the law of change for the sake of change and the law of expenditure of renewed vigour"; but he thinks that "the two facts are distinct in their nature, and each needs to be studied on its own ground, and not to be inferred from the known workings of the other". Certainly, if the narrower law of pleasure obtained in "change for the sake of change" can be shown to be a special case of "the law of expenditure of renewed vigour" it will be a logical gain, and in my opinion there is little difficulty in so doing; for change implies the rise of elements of consciousness which have not been presented for a time; in physiological language, the activity of organs which have been well rested, and are capable of the "expenditure of renewed vigour".

All the examples given by Prof. Bain to mark this objection may be covered by his formal statement, "an organ is at its very best in point of preparation for activity by being exercised up to the proper limits, without the loss of a single day; . . . but to obtain the other pleasure there must be longer periods of remission, even at the cost of inferior vigour in resuming the exertion". Constant practice is necessary for the most efficient action in any line, because it brings about the action of the organism as a unit (more or less) in subordination to the special action which is perfected. Let this practice be intermitted, and at once the other activities of the system which had been subordinated again arise, and some of them become the controlling ones: when the intermitted activity is renewed, there will be pleasure connected with it (due to the nourishment through rest), but the subordination of the general system necessary for the greatest efficiency in the narrow line will not hold: what is more, the intromission will have changed the nutritive habits, and as a result of the intermitted practice when the action is renewed, as in the case of General Wolseley's horses mentioned by Prof. Bain,

although this action will be unusually pleasurable for a time, at the outset there will result a quick loss of ability, because of the failure of the nutrition, until the old nutritive habits have been re-established. Introspection corroborates this general view, for I think it will be agreed that the perfect efficiency of which Prof. Bain writes is only obtained by a concentration, a narrowing of attention. This means an adjustment of higher centres, which will be easily put out of relation by lack of exercise. What is more, this kind of perfection on limited lines involving such constant practice does not leave room for any nutritive *accumulation*, and it is natural, therefore, to find that such perfection of skill, after the *first moments* of exercise, does not give great fullness of pleasure to the performer, in the psychic elements which are directly coincident with the skilful activity. The *virtuoso* in any line finds his constant effort laborious. The delights he gains are indirect, through the sense of power over others and in connexion with their devotion to him. Let the skilled man be cut off from this laborious practice, however, and he soon begins to crave the intermitted activities as the organs involved become over-prepared through "nutritive momentum": when the opportunity for activity returns he may have lost the balance implied in the perfection of adjustment he once displayed—but he will experience an intensity of enjoyment that the full practice did not give.

§ 3. It seems clear to me that "destruction of a sensitive nerve tissue involving injury to a nerve" implies that the nerve organ "is subjected to a stimulus after it has not merely lost surplus vigour, but has got into an impoverished or deteriorated state". The first statement above quoted is one of relatively narrow application, while the latter statement has been found to have a very wide application, and I see no logical basis, therefore, for holding that "neither can be stated in terms of the other". I would note that Prof. Bain's examples here appear to me to be unfortunate, for we cannot claim any very accurate knowledge of the mode of activity in the taste organs. Examination of the other sense organs has shown that what were formerly thought to be simple organs, are really bundles of separate organs, to speak roughly; and the experiments of Vintschgau<sup>1</sup> clearly point in the same direction, so far as taste is concerned. At all events, I think it must be granted that there is much evidence in favour of, and no evidence controverting, the notion that the bitters and sweets are brought to consciousness through the agency of different terminal organs, and this being so, there seems to be no difficulty in supposing that while sweets are usually (but by no means always) pleasant, because coincident with the activities of organs

<sup>1</sup> Confer Hermann's *Physiologie*, vol. iii. part ii. pp. 157 and 209. Vintschgau's experiments have been repeated and verified by Dr. C. L. Dana, and doubtless by others.

which have storage capacity; on the other hand, that the organs which are affected when we experience bitter tastes have little power of storage, so that they very soon become exhausted and bring pain. That they *always* bring pain, I think cannot be shown. Bitters are not always unpleasant where the stimulation is small in degree and is not too long continued.

§ 4. I do not grant that consideration of "the wide region of the stimulants, in the shape of drugs," shows "the necessity of qualifying the literal statement of the doctrine we are discussing". It has not been shown, in my opinion, that "such stimulants retain their pleasurable efficacy long after the *nerves affected* have sunk below par," if the words "*nerves affected*" refer to the organs which are active coincidently with the pleasurable elements of the psychosis. It is, of course, true—but this is quite apart from the law under discussion—that the content may be pleasurable (because involving the action of artificially nourished organs), while at the same time the system, taken as a whole, which, apart from the special pleasure under consideration, gives no pleasurable content, may be moving towards "total bankruptcy". The difficulty here seems to consist in a failure to hold clearly in mind that the law which is criticised relates to the organ of the content, and not to the health of the organic system as a whole; that Prof. Bain fails to grasp this distinction is clearly shown by the latter portion of this special criticism.

§ 5. Since Prof. Bain's criticism was written I have made clearer my notion of the relation of the theory under discussion to the important region of æsthetics.

The pleasures of Harmony, in the wide sense in which the word is here used, are, I think, explained with no little success in terms of the theory before us. For Harmony in all cases implies common elements in the two mental complexes which harmonise: there is a demand for the common element from two sources; the stimulation of the organ of this element from two quarters at once; a condition of hypernormal stimulus which, under proper nutritive conditions, must bring Pleasure. "The extraordinary increase of pleasurable intensity due to minute adjustments of the combining elements in a work of Art" presents no insuperable difficulties. The pleasurable elements either act by a process of summation and are enduring because the Genius strikes the means by which to eliminate pains, which the ordinary worker cannot keep from clashing into what would otherwise be a pleasurable field; or else they are connected with a narrowed attention. In this latter case we have a vividness of Æsthetic thrill, which is determined in the first place by the elimination of painfulness, as in the first case, so that attention, undistracted by annoyances, is able to become concentrated upon the object presented. Beyond this, however, concentration of attention always involves an intensity of psychosis; the intense coincident nervous activity may produce an overflow of energy into the

general nervous system, which, not being governed as usual, may bring into experience that wide thrill so commonly noticed. When this concentration of attention determines activities in organs well prepared by "nutritive momentum" in a manner which I have attempted to sketch out, this thrill must bring a striking pleasure such as we find. That the difference between the ordinary man and the Genius in æsthetic production of any form can be stated in detailed scientific form is not to be expected. The complication of combinations by which the Genius avoids pains and accumulates pleasures is indefinitely large, and that nature has given to him the ability to discover these combinations is what constitutes him a Genius. Were the flashes of Genius not too subtle to grasp, we should all know the way, and his "inspiration" would not be acknowledged. It would of course be impossible to hold (see p. 17 of Prof. Bain's article) that "minute adjustments of over-tones" made the difference between an average singer and a Jenny Lind. The difference is far deeper. The Genius takes hold of us body and soul. The "average singer" touches us *superficially* and cannot bring about the fascination which goes with the elimination of distractions and the concentration upon delights which are stimulated through our whole being. That Prof. Bain makes too much of this superficial aspect is, I think, clear in the latter part of this fifth criticism, to which I now turn.

Here I would note again the failure to distinguish between the vigour of the organism and that of the organ active in giving the content. "The very harsh discords" may have very "special connexion with nervous exhaustion" in the organ, even when the system in general shows "the highest possible vigour of the nervous tone". It is to be noted also in opposition to Prof. Bain's position, that very vigorous people can endure harsh noises, which are intolerable to the invalid. But, on the whole, I think it is an exaggeration to hold that very vivid pleasures are to be obtained out of any mere "concord of sweet sounds," if we limit our mental content to the sounds themselves and cut off all wider effects; or to hold that any very vivid pains are to be reached through a content of mere tone harshness, apart from any of the hypernormal stimulus connected with what we call loudness.

§ 6. What Prof. Bain calls "the slightest conceivable contact on the skin" involves not only a very considerable stimulation of certain particular tactile organs, but also a summation of such stimulations. The thrill connected with the embrace, it seems to me, is closely allied with the æsthetic thrill above discussed, and is to be explained in similar manner.

§ 7. Of this closing criticism I have to say only a word. I do not despair of being able to cover the ground in which Prof. Bain sees so much weakness more fully than has been possible in the articles on which he has based his criticism. The amicable

pleasures, I think, can be shown to be related to Joy ; in other words, can be shown to be determined by the very wide moderate hyper-stimulations which always go with Love. The malevolent pains are very much exaggerated in people of our type by repression. That malevolence is for many people often pleasant Prof. Bain has himself argued : but usually malevolence is restrained, and being a very powerful impulse, the restraint is exceedingly distressing : on the other hand, when unrepressed, the malevolent activities involve excessive strains in certain narrow lines, and if these unusual activities are continued for a length of time they naturally beget pains. It seems to me that no quantitative estimate can well be made of the proportion of explanations to cases unexplained ; if, however, Prof. Bain still doubts whether my theory "covers one-third of the ground," I cannot agree with him. The reader must judge between us. I find no cases which appear in distinct opposition where we have anything like a thorough knowledge of the action involved, and the vast majority of cases which have presented themselves to me appear to be stateable in terms of the theory. I must hold, therefore, that it would be a loss and no gain to insist upon any other laws as of co-ordinate importance with those which relate Pleasure and Pain to efficient and inefficient activities respectively, in the organs functioning coincidentally with the elements which are pleasant or painful.

HENRY RUTGERS MARSHALL.

## NAMES AND REALITIES.

The reviewer of my book on *Distinction*, in *MIND*, N.S., No. 4, raises a question (p. 553) as to the best way of conceiving the character of distinctions under the assumption that Nature is continuous.

I completely agree that it would be a mistake to suppose that the difference or distinction or change is not as real as the continuity, or that men have made language by taking words at pleasure and using them arbitrarily or perversely to indicate distinctions which are not real. It is not the *difference* that I should call unreal, nor (except for the sake of brevity of expression) the *distinction*; but only the *sharpness* of the distinction, or the *distinctness* of the contrasted notions. This seems to me artificial, or 'unreal,' just so far as the contrast holds good between 'things' and 'names' or notions. I should therefore interpret the doctrine that Nature is continuous to mean that 'things' are not sharply distinct, however sharply they be (in name or notion) distinguished.

It may be worth mentioning further that such an interpretation of the continuity of Nature does not depend upon any special theory of evolution. It does not even depend, for instance, on the familiar doctrine that man and beast are blood-relations,<sup>1</sup> although this truth (if it be true) illustrates one mode in which difference arises out of identity. At most, my view depends on the general assumption that all 'things' are a passing form of a permanent substance, and, as such, have had an origin. But, on a more every-day level, it only requires us to recognise a difficulty, felt in proportion to the closeness of inquiry, in fitting our names to the things or cases they refer to. So that, for instance, the transition from *inorganic* to *organic* matter that occurs when a plant absorbs its food is enough to break down the line between these contradictories. We need not profess to know whether organic or inorganic matter appeared first on the earth, nor how either of them originally came into existence.

The question remains how far the distinction between 'things' and 'names' itself holds good. I have noticed very briefly (in my Appendix) some of the difficulties in answering this question. It cannot, I suppose, be finally answered until we know the 'thing-in-itself'—that is to say, never. Meanwhile, by strict limitation to our purpose of the moment we can always put a value into the distinction between 'things as they are' and 'things as they are conceived'. Though we may never be able to get at the untheorised facts of Nature, we can always distinguish between a more and a less abstract view of the facts,—can always see as clumsy (or artificially distinct) the names we use. Just in the same way, our failure to comprehend Infinity does not matter so long as we can see that any *given* finite leaves room beyond.

ALFRED SIDGWICK.

<sup>1</sup> It is due to my reviewers generally, to notice that only one of them—Mr. A. W. Benn, in the *Academy*—has misrepresented my view in this respect.

PROFESSOR WUNDT ON HYPNOTISM AND SUGGESTION.<sup>1</sup>

Dr. Wundt's tractate appears at an opportune moment. There unfortunately exists at present a certain degree of severance between the right and the left wing of experimental psychologists;—between those who cling to the established methods of the psycho-physical laboratory, and those who follow the wider vistas which hypnotism and kindred studies seem now to be opening up. Dr. Wundt's pamphlet, in spite of the judicial, or rather episcopal, tone of some of its hortatory passages, is, in fact and avowedly, an *ex parte* plea in favour of the older and against the newer or more adventurous methods of psychological experiment. It is well that this plea should be made by so eminent a representative of his own branch of research; but it is well also that it should be discussed, not only by those already committed on the same side (if sides there must be), but also by some of those who estimate differently from himself the probabilities of progress in the two rival fields.

'I'm sure they were talking of me,' said the too self-conscious hero, 'for they laughed consumedly.' I have no evidence that Dr. Wundt is aware of my existence; but I may perhaps assume without undue self-assertion that, if aware of it, he would willingly include me in the scope of all his disparaging remarks. Possibly, therefore, readers of *MIND* may feel some interest in hearing from me certain comments, which, although intended to be perfectly fair, come, no doubt, as definitely from one side of the controversy as Dr. Wundt's from the other.

Dr. Wundt's introduction begins (pp. 3-9) with a description—which I confess has not a little pleased and surprised me—of the extent to which the 'hypnotism-psychology,' as he terms it, with the belief in telepathy and clairvoyance, which he regards as its almost inevitable sequel, has already permeated not only popular but scientific thought in Germany and on the Continent generally. Knowing as I do how very few persons have as yet done any serious work either in the psychology of hypnotism, or in those cognate inquiries which for sheer lack of a better name we have labelled as 'psychical research,' I am astonished that the influence of this work should already be felt as so alarming. I think, indeed, that Dr. Wundt over-estimates our success; but this over-estimate itself may be serviceable here as prompting him to build a more conclusive dam against what he regards as so powerful a stream of tendency.

Some little misgiving as to the strength of this dam is first aroused when we find Dr. Wundt (p. 9) emphatically repudiating

<sup>1</sup> *Hypnotismus und Suggestion*, von W. Wundt, Leipzig, 1862. (Pp. 110.) In the main a reproduction of an article in *Phil. Studien*, Bd. viii., Heft 1. Cf. *MIND*, N.S., vol. i. p. 441.



the notion that the man who pronounces an opinion on these particular matters 'must before all things have concerned himself with them much and perseveringly'. His view, on the contrary, is (p. 10) that such conversance is in itself a disqualification; since 'the success of such experiments only shows that the people who make them believe in them'. And certainly we have here a formidable difficulty in the way of research, if the very fact of making investigations only proves that one's mind is already made up (p. 9, *Wer an Zauberei glaubt, &c.*). Dr. Wundt, at any rate, has kept clear of this danger; for he explains (p. 12) that he has thought it right to exclude hypnotism from 'the circle of his researches and the work of his laboratory'; and has confined himself (p. 14) to the subject's 'fast überreichen Literatur'; whose exuberant richness he has indeed controlled by a severe, if somewhat unintelligible, process of selection among the ordinary books.

I. The first chapter contains a description of "The Phenomena of Hypnotism"; which a similar selective choice has reduced mainly to those phenomena commonly observable on the public platform. In this chapter, too, we find the first explanation which Dr. Wundt offers as his own;—an explanation at which it would ill become me to cavil, as I have been in the habit of reading, writing, and believing it for a good many years. Dr. Wundt is speaking of post-hypnotic suggestions;—the performance or perception, that is to say, in the apparently waking state, of actions or hallucinations enjoined during the hypnotic trance. 'So betrachtet man dies,' he says (p. 21),—'*This is commonly treated as being a hallucination supervening in the waking state*'. 'Wiederum würde es aber wohl richtiger sein zu sagen,' '*but here again it would surely be much more exact to say that although all other symptoms of hypnosis are absent, this suggestibility to hallucination is itself such a symptom; and a state of partial hypnotisation exists.*'

It is gratifying to have this apparently quite independent confirmation of the view so long maintained and so fully illustrated by (amongst others) Gurney, Janet, and Delbœuf.

II. But it is in the second chapter that the explanation of 'the physiology and psychology of hypnotism,' properly speaking, begins. Now there are certain points which experience has taught me to look for in expositions of this dogmatic type. (1) There will be much theory, of a highly speculative kind, as to the cerebral mechanism of hypnotic inhibition. (2) Somewhere or other there will be a personal anecdote, whose opening phrases I can pretty closely predict. 'No, my dear sir!' says my interlocutor, 'your stories are rubbish—muddles of memory—not written down for weeks and weeks after the event. But *I'll tell you one story which is true, for it happened to myself!* Twenty years ago, sir! and as fresh in my mind as if it were yesterday!' (3) Lastly, when some definite puzzle turns up,

such as no manipulation of scientific phraseology will suffice to meet;—the production of blisters by suggestion is a good example;—this special problem will unfortunately be found to lie ‘outside the limits of our present paper’.

(1) Pages 24-40 and 45-81 contain a good deal of matter illustrating the *first* of these three expectations. But I will frankly confess that ‘it is outside the limits of my present paper’ to pronounce between the relative probability of Wundt’s ‘apperception-centre’ and Lehmann’s ‘vasomotor point of outflow of psychical operations,’ as concerned with the inhibitions observable in the ordinary hypnotic trance. Of this much only am I sure,—that no hypnotic experiment has as yet been suggested which can decide such a controversy; and that, were it decided, little advance would have been made in the study of hypnotism whose weightiest problems lie not in its narrowings, but in its extensions, not in its inhibitions, but in its furtherance of faculty.

(2) The inevitable *personal anecdote* occupies pp. 41-45, and narrates how Dr. Wundt, when extremely sleepy, endeavoured to make a typhus patient drink tincture of iodine out of a spoon, under the impression that iodine would soothe his pain. The patient by a fortunate inspiration spat it out, so that the interest of the story is not tragic, but psychological, and lies in the erroneous association of ideas,—of the dark-coloured iodine with dark-coloured laudanum,—which somewhat resembles the hypnotic patient’s acceptance of a raw potato for an apple. Dr. Wundt has preserved this incident, he tells us (p. 41), ‘ungewöhnlich treu’ in his memory; ‘so that I can still to-day bring to mind almost the minutest details’. The incident occurred thirty-seven years ago.

I will not dispute Dr. Wundt’s asseveration of a memory still accurate across the gulf of a generation: but one feels that under the circumstances he might have expressed a less sweeping contempt of other men’s recollections of incidents a few days or a few months old.

Das Schwören in der Ordnung war,  
Das Beissen war überflüssig.

(3) Dr. Wundt’s treatment of stigmatisation and kindred phenomena has an interest of its own. ‘Blisters,’ he says (p. 23), ‘can be produced by the application of notepaper, or in similar ways, if the suitable idea, *e.g.*, that the paper is blistering paper, has been suggested to the subject. Bleedings from the nose and skin, so-called stigmatisations by suggestion, have also been occasionally produced.’ The stigmatisations, then, of which, in Louise Lateau’s case, Virchow uttered his celebrated ‘*Ou supercherie ou miracle!*’ are now quietly smuggled within the scientific pale with no mention of the long years during which they shivered outside it, as types of the nonsense which he only ‘*wer an Zauberei glaubt*’ could possibly believe. We look forward eagerly to see in what

way Dr. Wundt has welcomed into the order of nature a phenomenon which the direct interposition of Providence was formerly needed to produce.

But the chapter of explanations moves, for the most part, safely among the *apices physiologie*, and hypotheses which we may not rudely test. On its last page only we find the following paragraph (p. 81):—

‘Finally, I will not omit to remark that I regard the purely physiological effect of suggestion, which manifests itself through hyperæmia, bleeding, the increase or check of secretions, &c., as in general easily explicable (wohl erklärbar) by the known vaso-motor and secretory functions of the nerves, and by my preceding assumptions as to the nature of the cerebral changes during hypnosis. But since this topic lies outside the limits of the present paper, whose aim is psychological, I must here content myself with the above observation.’

III. The third chapter, on ‘Suggestion as a Method of Experiment,’ consists of criticisms on the vagueness of replies obtainable from hypnotised subjects, as compared with the exact waking self-observation which ‘the numerical psychology,’ with its instruments of precision, is well adapted to foster and clarify. Here again I shall not deny a difficulty on which I have myself insisted; but I could wish to have had Dr. Wundt’s opinion upon that recent development of experimental psychology whose main object is to get clear messages by writing, picture, gesture, or utterance regarding those very phenomena which the hypnotised subject is able only confusedly to explain or recount. I allude, of course, to the study of sensory and motor automatism. Dr. Wundt quotes no English writer throughout this treatise; but since he has one disparaging allusion (p. 38) to an article of Prof. Pierre Janet’s, I had hoped that that author’s important work, *L’Automatisme Psychologique*, might have fallen under his notice. Yet I infer that it is unknown to him, both from his silence on the subject in this chapter and from a previous passage (p. 66), where he explains so-called ‘negative hallucinations’ (as when the subject is rendered unable to perceive that some given person is present), as the ‘effect of a lessened sensibility of the sensorium to impressions’. After Prof. Janet’s elaborate proofs that the facts of which in a ‘negative hallucination’ the subject appears unaware, are in reality perceived and deliberately ignored by the watchful action of another section or stratum of the personality, it is strange to find Dr. Wundt still holding to the old *primâ facie* explanation of a lessened instead of a specially alert sensibility to the person or object thus designated for disappearance from the subject’s apparent or superficial perception. But indeed throughout Dr. Wundt’s pamphlet there is a complete ignoring of what is now being done to bring these isolated phenomena of hypnotism into line with a number of other facts of human life; facts rare, misunderstood, or neglected, but which,

when duly observed, make hypnotism for the first time a *retrospectively intelligible* phenomenon; I mean a phenomenon which with our present knowledge we might have been able to predict;—and which suggest, moreover, an ever-widening range of experiments with results whose limit we cannot in any wise foresee.<sup>1</sup>

For Dr. Wundt, on the other hand, hypnotism seems to be a kind of alien, unwelcome puzzle; a sort of meteorite crashing down unpleasantly upon his wonted field of research. He analyses it just sufficiently to pronounce that it is composed of minerals already known; and then confines himself to praying that such intrusive objects may fall on our heads as seldom and as softly as possible. So difficult is it for even the most eminent *savant* to combine the duty of expressing authoritative opinions on any given subject with the duty of excluding that subject from his habitual study and experiment! so perilously probable is it that his exposition may in some degree reveal the ignorance which it is designed to justify!

IV. But the sting of Dr. Wundt's pamphlet is undoubtedly in its tail. His fourth and last chapter, on 'The Practical Significance of Hypnotism,' concludes with a telling passage; for the sake of which we may perhaps conjecture that the preceding pages may in great part have been composed:—

'In truth,' he says, 'as the history of the hypnotic movement in Psychology sufficiently shows, it is not an unmixed scientific interest which has stimulated this inclination to the free use of hypnotic experiment. Rather it is the leaning to Occultism, which, being as it is a conspicuous factor in the intellectual movement of our time, has made itself master, on quite intelligible grounds, of certain philosophers and psychologists of the day. It is, indeed, an admitted peculiarity of Philosophy that she forms a meeting-point, not only for the tracks which mark the age's scientific progress, but also for those which mark its errors and aberrations. Just as for Occultism Hypnotism is "the antechamber to higher secrets," so also do many of the champions of the Hypnotism-Psychology treat "suggestion" as a means of getting upon the scent of a mystical psychology, involving psychical operation at a distance, clairvoyance, and spirit-materialisation. Even among the more rational votaries of hypnotism, who stand aloof from such superstitious errors, the insidious influence of this occultist current is apt to show itself in many ways—especially in the inordinate value—out of all proportion to the actual facts—which they attach to the psychological significance of Hypnotism; often also in their leaning to fantastic hypotheses, which on closer view reveal

<sup>1</sup> I may perhaps refer the reader to papers on 'The Subliminal Consciousness,' and 'The Mechanism of Suggestion,' in Part xx. of the *Proceedings of the Society for Psychical Research*.—(Trübner.)

themselves as rudimentary recrudescences of well-known and widespread forms of superstition.

‘Considered as a phenomenon in the history of culture, Occultism is certainly of no small interest; and to follow it through its various phases of development forms an attractive problem in the Psychology of the popular mind. But this scientific interest is as far from affording sufficient reason for desiring the further success and progress of this thoroughly pathological tendency in modern Science, as the scientific interest which a physician takes in a patient’s symptoms is from justifying him in the hope that those symptoms may become intenser still.’

‘*Durch und durch pathologisch!*’ Rarely does a man get the chance of letting fly such a marrow-piercing phrase at his foes! However transfixed, one cannot but feel a literary sympathy with the hurling of such an arrow from the bow;—such sympathy as one feels with a Pope, who knows that his forthcoming Bull will be cited for all time by its initial words, and sits rubbing his hands (as one fondly fancies) in his cathedra, and hesitating between *Impudentissimi homines* and *Error damnabilis*.

Yet I should be glad to get, if I may so say, behind the curse and into the arguments. I should like a solid, scientific definition of Occultism, which should show me in what way my friends and I come within the four corners of the malediction. I had supposed that Occultism meant the asserted possession of knowledge derived from some source hidden from the mass of mankind; and that Masters of Occult Science had acquired some mysterious tradition, only to be guessed at by studying the heading ‘Curious’ in catalogues of second-hand books. And I had only refrained from calling Occultists, in the lump, pathological, because I had my reasons for supposing a good many of them to be passably healthy and perfectly fraudulent. Cheap and scant as is my own knowledge of the mysteries of things, I am certain that no Mage nor Mahatma nor Mumbo-Jumbo in existence can bestow on me a ha’porth more.

No, the point where—as an *impudentissimus homo*—I venture to question Dr. Wundt’s encyclical, is simply as to his right to decide *a priori* whether certain alleged laws of Nature can or cannot exist. I desire not to narrow, but to extend, the range of Experimentation. Is it impossible to conduct an investigation rationally because other men have imported into it their superstition or their fraud? Can we not ignore the fanatic, expose the impostor, and look through the telescope of science as steadily as though there were no monkeys on the watch to jog our elbow? You may call ours the spirit of inquiry run wild, if you will. You may say that we resemble Darwin only in his liking to try ‘fool’s experiments’; and that we should have been in our right place beside the sensitive-plant when that great

man played to it on the bassoon. Such a scoff might have some appropriateness. But if, on the other hand, we are charged with disregarding observation, with neglecting experiment, then indeed we shall be forced to return the warning upon those who utter it; and to remind them that he who on any *a priori* ground, however plausible, would narrow the world-wide field of scientific inquiry;—he who in disgust at monkey-tricks, however provoking, would desert the attitude of candid disengagement, of resolute openness of soul;—such an one would be pushing his way without a clue into the labyrinthine Universe,

qua signa sequendi

Falleret indepressus et inremeabilis error.

It is not in such a connexion as this that one would willingly think of Dr. Wundt. A man must be judged by what he has himself done;—not by what he has told his neighbours that they will never succeed in doing. Dr. Wundt's established repute has been well and fairly earned,—if not by any special gift of philosophical penetration, yet by a persistent and effective industry which few men on our side (if sides he will insist on making) have even attempted to rival. Would that we had a few more workers as laborious as he! We have but scratched the surface of a field which will repay the deepest ploughing of many a generation yet unborn.

FREDERIC W. H. MYERS.

## VI.—CRITICAL NOTICES.

*The Principles of Ethics.* By HERBERT SPENCER. Vol. i. London: Williams & Norgate, 1892. Pp. xii., 572.

This volume contains, besides part i. published as the 'Data of Ethics,' two new parts, ii. and iii., dealing with 'the Inductions of Ethics' and 'the Ethics of Individual Life' respectively. Part iv. on 'Justice' having already appeared, there remain to complete the work the two parts treating of the 'Ethics of Social Life,' which Mr. Spencer hopes (a hope in which we all join) that he will be able to issue shortly. They will, he says, remove "a very erroneous impression" which may be left on people's minds by the parts hitherto published, namely, that the "general tone of evolutionary ethics" is one of sternness. It has in truth seemed to many persons difficult to reconcile tenderness to the weak, not with evolutionary ethics, but with Mr. Spencer's particular exposition of them. As to the general character of these new portions of the work, it is sufficient to say that while they contain no important new principles that have not appeared in the 'Data' or elsewhere in the 'System,' yet as usual Mr. Spencer's old dogs wear new doublets, and the old principles are applied to a great variety of new details and illustrations. Some of his favourite tenets are re-stated with the greatest vigour and freshness.

Part ii. opens by pointing out the confusion which is imported into our ethical thought by the various sources from which conduct derives its authority. Originally ethics<sup>1</sup> is identical with religion; the will and habits of the gods are the standard of conduct. Moreover different social conditions require different conduct, and the average sentiments become adjusted to these requirements. Hence the growth of two kinds of codes, the "ethics of enmity" and the "ethics of amity," as they are happily entitled, required respectively for a life of external aggression and conquest, and for harmonious internal co-operation. Since this co-operation is helpful for conquest it becomes embodied in the moral code and is supported by the authority of rulers. In addition we have utilitarian conceptions derived from recognition of consequences naturally produced, and apparently also conceptions (p. 320) irrespective of observed consequences, produced by the discipline of moral life and constituting moral intuitions. Our ethical ideas are a mixture from all these sources. The ethics of enmity are retained from an earlier stage and co-exist

<sup>1</sup> Mr. Spencer uses the term "ethics" indiscriminately of actual conduct ("morals") and of thought about conduct, or of the science of conduct.



with the ethics of amity. Mr. Spencer plays on a familiar string when he dwells on the contradictions into which we, and especially the clergy, are drawn from the "thin layer of Christianity overlying a thick layer of Paganism," and he is nowhere happier than in speaking of Paley, "who in his official character derived right and wrong from Divine commands, and in his unofficial character derived them from observation of consequences". He is, of course, merely describing an incontrovertible fact, but an unwary reader might carry away the impression that Mr. Spencer thought the clergy morally blamable. This would not be quite fair, since if nations must go to war, preachers of the Gospel are citizens as well as clergymen and could hardly be expected to weaken the energies of their countrymen by denouncing as guilt what may be an inevitable necessity. Very little excuse can however be found for the bishop who is responsible for a wish reported on p. 317.

In chapter ii. Mr. Spencer draws a distinction between ethical ideas, which are strictly ethical, and those acted on by the mass of mankind, which he calls pro-ethical. The distinction is based on the authority recognised, and, to speak roughly, it is the difference of extrinsic and intrinsic morality. In pro-ethical conduct (why not *pre-ethical*?) the idea of obligation arises from the consciousness of some external authority, whether the God, the dead ancestor, the living ruler, or public opinion; and along with this consciousness goes, according to the analysis given in the 'Data,' the element of coercion, together with the represented opinion of other individuals, which it is not easy to distinguish from the authority of public opinion. The true moral consciousness, on the other hand, or conscience, "does not refer to those extrinsic results of conduct, which take the shape of praise or blame, reward or punishment; but it refers to the intrinsic results of conduct, which in part and by some intellectually perceived, are mainly and by most intuitively felt. The moral consciousness proper does not contemplate obligations as artificially imposed by an external power; nor is it chiefly occupied with estimates of the amount of pleasure and pain which given action may produce, though these may be clearly or dimly perceived; but it is chiefly occupied with recognition of and regard for those *conditions* by fulfilment of which happiness is achieved or misery avoided" (p. 337). And along with its establishment the sense of compulsion or coercion disappears. The distinction is introduced in order to indicate that there is a large body of conduct, very different at different times and places, and sometimes flagrantly contradictory to our own ideas, which carries with it the sentiment of rightness and must therefore be considered as moral conduct. It is certainly a valid and important distinction. The pro-ethical man, if asked, will justify himself by reference to a different standard from the ethical man. But the above statement is not without ambiguity.

The words might be taken to mean merely a difference between seeking rewards and seeking intrinsic personal or social welfare. But seeking rewards merely would not be moral even in the eyes of the savage; the authority of morality which the savage recognises, however external, is accepted by him and regarded with disinterested reverence, as much as the most intrinsic standard of the later man. Mr. Spencer himself enforces this by showing how sentiments of approbation attach to these absurd and revolting customs of primitive men. Their moral sense then differs from ours only in the nature of the authority recognised; and the distinction therefore, important as it is, does not indicate a real moral difference. Moreover, with ourselves ethical ideas, when they have become habitual, drop into the pro-ethical condition. Nor, it may be observed, does the sense of compulsion vanish from the higher form of conscience; it has only become internal, instead of external. And supposing the absolute state attained in which no such compulsion of the stings of conscience were ever necessary, conduct would have become actually instinctive, and the consciousness of an authority might be dispensed with. In commenting on the above definition, it is worth while to refer to the way in which the contrast of utilitarianism and an evolutionary conception of the standard is expressed.

In the remaining chapters of this part, Mr. Spencer confines himself to the varieties of pro-ethical ideas, illustrating them chiefly from savage customs, from which, as he says, ethical ideas, as defined by him, are absent. The successive chapters deal with Aggression, Robbery, Revenge, Justice, Generosity, Humanity, Veracity, Obedience, Industry, Temperance, Chastity. The important generalisations drawn are the following: that the mere existence of certain customs generates corresponding sentiments of obligation towards them; that moral conduct differs according to the different social, economic and political conditions; that the ethics of enmity and the ethics of amity correspond to a well-marked distinction between societies engaged in warfare and peaceful societies. In defence of these positions a great mass of evidence, some of which forms very entertaining reading, is marshalled, which, however, it is unnecessary to refer to at length. Mr. Spencer himself points out that, independently of the varying value of the testimony, "where data are numerous and inexact, the conclusions must be proportionately indefinite". And certainly the conclusiveness of the evidence varies very much in the case of the different virtues and vices. The effect of the predominance of a military regime in creating the ethics of enmity is more obvious in the case of aggression, robbery and revenge, than in the case of veracity and temperance. The condemnation of duelling in industrial England as compared with the approval of it in military Europe is a type of the kind of evidence produced; or the disregard of what we call justice, such

as imposing labour on women among savages engaged in conquest, and the sparing of women's labour by peaceful tribes. On the other hand, with regard to truth, some truthful tribes are warlike, while there are others that are peaceful. But Mr. Spencer finds that in both cases the people are not subject to despotic government, and he seeks to make out the general connexion of war and lying by pointing to "the coercive social structure, which chronic external enmity develops, and to the non-coercive social structure developed by a life of internal amity". The observations in respect of chastity are not very clearly made out in dependence on a military regime. When there is much violence a great population is desirable. But unchastity does not promote population. On the other hand, it is true that militant societies become naturally polygamous, and the position of women is in general degraded. Again, temperance is shown to depend very largely upon natural conditions of life, such as the occasional gluttony of the Esquimaux, described in an amusing passage (p. 437). Mr. Spencer points out (p. 466) that ideas respecting temperance and chastity may "display less intelligible relations to social type and social development, than do the ideas and sentiments concerning co-operative conduct," because the evils entailed on the community are indirect, though it is difficult to see how this can be the case with unchastity.

In judging the value of these generalisations we have then to bear in mind the want of strength of the evidence in the case of some of the virtues. The general position that different social conditions determine different codes of conduct cannot be doubted; the influence of peace and militarism is less well established though strongly supported. It is not easy for any one who is not a learned anthropologist to know how far opposing data may be advanced from other quarters. It is certain however that such a detailed account of the moral ideas of savages as Mr. Spencer has here presented is badly wanted and has been hitherto unattainable. Mr. Spencer may be confirmed in his expectation that the evidence which he set forth will fail to convince those who believe in the originality of moral ideas. The evidence is absolutely conclusive against such a doctrine. But so also was the evidence adduced by Locke, though infinitely less abundant. We shall still hear of an identity of tendency in repugnant ideas, and the distinction of what is implicit from what is explicit is always available to point the belief that savages are implicitly temperate because they are not always drunk. Mr. Spencer of course accounts for the immediateness of the moral sense in his own way as due to the gradual formation of sentiments in the structure of society and its individual members.

Part iii. deals with the 'Ethics of Individual Life,' that is to say, with the properly self-regarding duties, and those of the family. The subjects discussed are the following: Activity,

Rest, Nutrition, Stimulation, Culture, Amusements, Marriage, Parenthood. With the exception of culture and amusements, they concern almost entirely the physical functions of man, which are properly treated by Ethics, according to that biological view familiar to us from the 'Data,' which considers human life as part of life at large. The insistence on the moral character of those activities was one of the marked features of the earliest instalment of Mr. Spencer's treatise. Though they are often imagined not to be ethical at all, yet it is plain enough that if not in themselves, yet in so far as we direct them deliberately, or as they enter into the scheme of life, they are as much conduct as the higher activities, and Mr. Spencer is perfectly right in saying that "a theory of right and wrong which takes no cognisance of nine-tenths of the conduct by which life is carried on is a folly". The chapters constitute naturally something like a treatise on education, and recall Mr. Spencer's earlier work on that subject. Mr. Spencer writes of these apparently trivial matters with seriousness as they demand, and this lends an unconscious humour to some pages of this part, such as those which discuss the use of stimulants; which as not supplying nutrition, but only quickening the rate of nervous action, are entirely illegitimate in a state of absolute ethics, but may be permitted in this relative state, where many men are almost inevitably overworked or depressed—where even a reviewer must consult not his own occasions but the urgency of his editor.

The conduct discussed is that which concerns the individual as such. Yet in accordance with the theory of egoism and altruism laid down before, the good of the individual is not kept apart from that of society; but, on the contrary, what promotes his welfare in these regards of self is shown carefully at the close of each section to be also the best for society. In presence of the sentimental altruism with which much contemporary theorising about conduct is tainted, this insistence on the claims of self is of the highest practical importance. Mr. Spencer repeats his demonstration that general altruism is suicidal. He might have added that excessive altruism is the very refinement of selfishness. But owing to Mr. Spencer's belief in the natural primacy of the individual over society, we come across statements which are of course repetitions of his well-known views about practical policy, but seem to indicate an incomplete recognition of the social character of even the most self-regarding and rightly self-regarding acts. He declares against the interference of the State with education in his familiar manner, on the ground of the right and responsibility of each parent to train his own children. In an interesting passage (p. 333) in part ii. he observes: "Now a householder who has refused to fill up the census paper, or a pedlar who has not taken out a licence, feels that he is regarded as not only having broken the law, but as morally blameworthy; whereas the pedlar's act in selling without a licence is morally

justifiable and forbidding him to sell without a licence is morally unjustifiable, is an interference with his due liberty which is ethically unwarranted". Yet there is no proof given that this liberty is "due". The State encroaches in fact perpetually upon the liberty of individuals wherever danger to the interests of the whole is involved. Only those encroachments are bad which hinder independence of character. The insistence by the State on education applies only to those who would otherwise not be educated and from whom therefore we could not expect their full efficiency. The extent to which the State should go is surely only a question of greater efficiency. And there is no inherent right in the individual as such. Nor, though this is scarcely the place to enter on such an inquiry, is Mr. Spencer describing the views of his opponents correctly when he declares them to believe that society is a "manufacture not a growth" (p. 545). They believe only that one important determining element in the growth of society is to have a direct conception of what social state they wish to bring about. Elsewhere, as in Mr. Spencer's assertion, that "natural equity" demands some sacrifice for children from those who owe their existence and rearing to the past generation (p. 533), we have an appeal to an apparently *a priori* principle. A pessimist may maintain that one generation has nothing to thank its parents for, and is under the contrary obligation of bringing no children into the world to undergo misery.

The separate chapters on 'individual' conduct are handled with admirable skill, at sufficient length to sketch the *raison d'être* of each kind of conduct, and briefly enough not to be tedious in the discussion of matters of such familiar concern. They form part, I suppose, of that code of absolute ethics, Mr. Spencer's conception of which is so problematical, which however, if understood as meaning either the best in our present conduct, or something better than our present conduct, would be accepted as a legitimate and valuable guide in practical reform. At the same time these chapters bristle with debatable points. In chapter ii., on 'Activity,' after making the just remark, that the moral judgment is bound to take account of the very different cost of exertion to different persons, Mr. Spencer raises the question whether the human constitution can be so adapted to its present conditions that the needful amount of labour to be gone through will be agreeable. Answering that this may be anticipated, and declaring that absolute ethics condemns labour which taxes the energies beyond the normal limit, he concludes also that adaptation to the social state will not produce a capacity for labour beyond that limit. If this means that it will produce an actual incapacity for such labour, the conclusion is a very bold one. All overwork is at present attained at the cost of some bodily or mental exhaustion; why should this be impossible then? What greater progress tends to produce is a set of social

conditions which will not require and will not allow labour beyond a certain point. But it is strange that Mr. Spencer should not recognise that this is actually the ideal of his opponents the collectivists; while the practical question of whether the whole society or associations of individuals should effect these changes, though of very great difficulty in itself, is still only a question as to the easier means. It is hard to distinguish in principle between the coercion of the trade-union and that of a state founded on the will of the people themselves.

Without describing each chapter in detail, in which case this notice would become almost as long as the book, some of the special points of interest may be noted. Some of them are merely wise observations, obvious enough when stated, yet important, partly because they are often overlooked, partly because they are stated here with their physiological justification. Such are the statements that different persons require different amounts of rest (c. iii.), and that the ethical judgment must not be passed indiscriminately in this connexion, or that it is wrong to eat when you are not hungry. (Mr. Spencer overlooks, however, the practical necessity of fixed meals.) Such also is the treatment of celibacy and marriage (c. viii.), where, after indicating the evils, physical and mental, of the celibate life, Mr. Spencer proceeds to discuss the question of improvident marriages. Condemning these, he yet points out that the age at which marriage takes place is by no means indifferent; infants born of mothers between the ages of 20 and 25 showing a lower rate of vitality. These discussions suggest irresistibly the minute directions given by the founders of ideal commonwealths in Greece and later times. When Mr. Spencer speaks of *mariages de convenance* as described "with some show of reason as legalised prostitution," he makes a very sweeping statement. Some such marriages may be open to his condemnation, and are always likely to be so in a society like ours, whose sentiments are averse from any marriages but those of affection. Yet the condemnation cannot be extended to the French system, which is said to produce as much happiness on the whole as ours.

In the chapter on 'Nutrition' (c. iv.) Mr. Spencer comments on the want of candour with which these perfectly legitimate pleasures are sometimes treated. Both here and in the chapter on 'Amusements' (c. vii.) he ascribes the concealment or the hostility with which these claims are treated as due to the ascetic bias given by religion. This is doubtless perfectly true, but Mr. Spencer exaggerates the force of this bias in practice. Asceticism has been the bugbear of English moralists since Bentham's time, but our practice is often very different from our theories about it. In the chapter on Amusements (where the language used of certain forms of athletics, like football, seems again to be exaggerated) Mr. Spencer deprecates much theatre-going, which, like much novel-reading, uses up the feelings for

imaginary objects and leaves none for real objects. This is exactly the opposite of the ground on which Plato condemned theatre-going, that it made the spectators sentimental or made them copy the passions of the stage in real life as well. That this is also true no one can doubt who has been privileged to overhear the remarks which fall occasionally from persons in the pit who are unable to conceal their feelings. Mr. Spencer's deprecation of excessive indulgence of the imagination connects with his general treatment of literature in his scheme of 'Culture' (c. vi.), his views on which are well known. 'That a fair amount of this [literary culture] should be included in the preparation for complete living needs no saying. Neither does it need saying that in a duly proportioned education, as well as in adult life, literature should be assigned less space than it now has.' The question is too thorny to be handled here, but there can at least be no doubt both that the place assigned to literature in the education of all is excessive, and that its indiscriminate cultivation to the exclusion of natural science and other objects of study is both unfair and bad for education and disastrous to literature itself. Perhaps our children will feel it as much a sign of an uneducated and illiterate person to be ignorant of some branch of natural science as it is with us to be ignorant of literature. In this chapter we may note Mr. Spencer's insistence on the value of cultivating manual dexterity and his complaint that it is neglected. He seems to forget that the kindergartens have done something already for this end. He repeats too his objections against the higher culture of women, as placing too great a strain on organisations intended specially for the continuance of the species. Over-culture of women is to be condemned undoubtedly, as over-culture for men. But for the opposition against higher education of women in general experience does not appear to bring any adequate justification. All that we have to be prepared for is that, after a full and free trial, some studies and some methods may possibly turn out to be inappropriate.

This part concludes with an interesting passage in which Mr. Spencer points out the relation of the rule of life laid down in these chapters to the doctrine of the mean, and the conception of a proportion between the various activities. The criticisms on Aristotle's doctrine of the mean do not seem particularly happy. Aristotle has himself said that every virtue is an extreme in respect of its attainment of the end. His doctrine equally with Mr. Spencer's demands complete adherence to a contract and complete veracity. Veracity is not a mean between "the two extremes of falsehood and truth," but between over-statement and under-statement. The applicability of the idea of the mean to justice is indeed not clear. (Mr. Stewart discusses the difficult question in his *Notes*, vol. i. pp. 473, 4.) And it must be admitted that the notion of the mean is of very little or no guidance for discovering what is right; it is a definition of what is right when



the right is known. The really fruitful notion is that of proportion between various activities, to which the idea of the mean may well lead on when it is thought out. Of this notion Mr. Spencer enforces the importance. It may in fact be maintained that this establishment of a due proportion between different parts of conduct in the individual constitutes the whole reason for considering any one part of conduct good.

S. ALEXANDER.

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*A History of Æsthetics.* By BERNARD BOSANQUET. London : Swan Sonnenschein & Co., 1892. Pp. xxiii., 502.

English philosophy is certainly not strongest on the side of art theory. The fact that no History of Æsthetics, so far as I know, exists in the language, may perhaps be taken as illustrating this weakness. Mr. Bosanquet has come to the rescue of our endangered philosophic reputation and has produced a book which will doubtless command a certain attention. It is learned, especially in the lore of the Germans, is thought out with some amount of originality, and to a point of subtlety that will be apt to perplex the unready. It shows in combination with metaphysical acumen a certain range of æsthetic sensibility. It is fitted to stimulate thought on some important problems in the theory of art. Whether it is a book that adequately deals with the distinctively modern problems of the æsthetic consciousness, and whether it specially addresses itself to the English mind, are questions which we may better consider after giving some account of its general plan.

The author begins by defining what he thinks to be the province of a history of æsthetics as distinguished from a history of art. It is at once a history of speculative ideas, and of these in their relation to the successive phases of what we may call the concrete æsthetic life. In this way it requires first of all a definition of beauty as its subject-matter, and this Mr. Bosanquet proceeds to give us. In this he seeks to combine the two factors emphasised respectively in ancient Greek and in modern æsthetic theory, *viz.*, formal beauty (harmony of parts, &c.) and significance or characteristic beauty. The definition runs : "That which has characteristic or individual expressiveness for sense-perception or imagination, subject to the conditions of general or abstract expressiveness in the same medium". This not too lucid formula means, as the whole after-course of the exposition plainly shows, that all beauty is ultimately significance or ideal content. Whether the attempt at formulating a single comprehensive principle of beauty at the outset is helpful to the history of the manifold movements of the concrete æsthetic life which Mr. Bosanquet includes, or even of the several rival theories of beauty, will appear as we go along. It at least offers a useful point of reference for critical appreciation, and, as might be

expected, the author is at least quite as much critic as historian. The second feature referred to in the definition of his territory, the connexion of theory with the concrete æsthetic consciousness, leads the writer to take a plunge now and again into the stream of art criticism, and to note the bearings of the development of æsthetic sentiment and of art-production on speculation. This is one of the most valuable features of the book, and is only unsatisfactory because it has not been done completely and impartially.

Greek theory naturally comes in for the first review. The author seeks to show that Greek art was less 'abstractly ideal' and more sympathetically expressive than has commonly been supposed: yet on the whole it represents the non-significant or formal conception of art. Greek theory is reduced to three fundamental principles: (1) the moralistic which subordinated art to a moral purpose, (2) the metaphysical which made the value of artistic presentation to reside in imitation or faithful reproduction of something valuable in reality, and (3) the true æsthetic principle, unity in variety. Mr. Bosanquet's treatment of this part of his subject is scholarly and instructive, yet it may be doubted whether he does not put too heavy a strain on his 'principles'. If it is true that both Plato and Aristotle were "encumbered with moralistic considerations" throughout the whole of their inquiry into the nature of fine art, it is surely no less true that their ethical speculation, as in regarding the essence of virtue to be proportion and a mean, was encumbered with æsthetic considerations. It is not quite clear to me, moreover, why Mr. Bosanquet regards the Greek theory of imitation, as a falling short in value of the reality imitated, as non-æsthetic and metaphysical. The æsthetic problem according to him is the determination of the conditions of beauty by analytic reflexion on its actual presentations. But his whole book shows that æsthetic speculation does not confine itself to the mere phenomenal presentation. In the Hegelian conception of art, which I understand Mr. Bosanquet to accept in its essentials, there is a most direct reference to a theory of supra-phenomenal existence—in other words, to a metaphysical pre-supposition. In fact the whole way of envisaging beauty, natural as well as artistic, as expressive of an idea, seems to imply a system of objective idealism. Compared with this the Platonic notion, that art-imitation was a falling short of reality, is non-metaphysical and essentially æsthetic as expressing one possible view of the relation of nature to art, though of course it may be said to be metaphysical in so far as it hangs together with his whole theory of existence.

Having thus put away classic ideas as far as possible from the modern point of view, the writer proceeds to trace out what he regards as "signs of progress" in Greek theory. Here, as also in the following chapters where he follows the sporadic

manifestations of æsthetic inquiry in the period of Alexandrian and Græco-Roman culture, as also in the writings of the Fathers and of the Schoolmen, Mr. Bosanquet shows himself at his best. In his general contention that there was no rupture of continuity between the æsthetic consciousness of the old and of the new world, he seems to be on safe ground. Criticism might, however, here and there object that the author tends to read a modern meaning into old language. It is almost provoking, for example, to find him when expounding Aristotle's distinctly psychological treatment of the problem of tragic effect, a mode of treatment for which the author's conception of æsthetics hardly finds place, trying to fix on Aristotle the germ of a recognition of the principle of idealisation (pp. 66, 67). Aristotle's thought seems far enough away from Mr. Bosanquet's forced expansions and completions of it.

A chapter headed "A comparison of Dante and Shakespeare in respect of some formal characteristics" is interesting reading, and shows knowledge and ingenuity. Yet it is surely out of place in a history of æsthetics which does not find space for even mentioning some distinguished thinkers on the subject. It looks like an essay that the author felt himself justified in incorporating into his treatise. Even if the differences between the *modos operandi* of the two poets have all the significance the author gives them the detailed account of them surely belongs to a *Literaturgeschichte*. This is not, as we shall see, the only place where the author seems to misapprehend the true scope of his subject.

The account of modern æsthetics opens with a chapter on "The Problem of Modern Æsthetic Philosophy". The author here tries to answer the question why modern æsthetics did not follow upon the art of Shakespeare as ancient æsthetics followed upon that of Phidias, by saying that art retained its vitality till the eighteenth century, so that the material of æsthetic was incomplete. But surely the literary movement of the Elizabethan era raised very definite art-problems, problems of which the great writers were themselves dimly aware, so that one may hazard the conjecture that if Bacon or Locke had had the æsthetic interest he would pretty certainly have given us new ideas on the subject. In tracing the course of æsthetics as a branch of speculation, it seems important to bear in mind that philosophers, through their habit of abstract study, are apt to be out of touch with a subject which is commonly recognised as having more to do with the feelings than with the intellect. The chapter professes to give an account of the development of æsthetic ideas in pre-Kantian philosophy, but it supplies only a meagre and imperfect sketch. Leibnitz, Shaftesbury, Hume, and Baumgarten are the four names included. Why Shaftesbury is named and Hutcheson omitted is not obvious. The account of Hume refers only to the crude æsthetic or quasi-æsthetic ideas of the *Treatise*, and makes no mention of the important æsthetic essays.

But a glance at the following chapter soon explains matters. Here we are given what professes to be "the data of modern æsthetic philosophy". This is substantially an account of the discussion of art questions in Germany in the last century by Winckelmann and Lessing. There is, indeed, a reference to the French writers, Pierre Corneille, &c., and the English writers (with the exception of Home) who had much to do with determining the lines of Lessing's critical reflexion. But it may suffice to say that there is no mention of Diderot in order to show that the history is curiously defective. Mr. Bosanquet has more German exclusiveness than the Germans themselves, for even Schasler finds a place for Batteux, Diderot, and other French writers, of whom we hear nothing in the English history. The reason of the omissions is pretty evident. The writer would, it may be assumed, not pretend that the Germans have had a monopoly in art-production, say the drama, or in art-criticism. But, as we all know, Germany has had an almost undisputed monopoly in the construction of metaphysical theories of beauty and art. To the framers of these theories the artists and the art-critics of their own country and age were undoubtedly stimulating influences, and this for the very good reason that the latter were themselves more or less possessed (this is true even of Lessing) with philosophic conceptions, and so cast the special art-problems which interested them into a philosophic or semi-philosophic form.

The long account of the rise of German art-criticism, beginning with a faithful reproduction of the imbecilities of Gottsched, may interest one who has never looked into a *Literaturgeschichte*. It must be confessed, however, that the details of the story hardly find their place in a general history of Æsthetics. Lessing has, of course, his proper place here, but to treat Winckelmann and Lessing as of co-ordinate importance is surely to overlook the reasons which give to Lessing his place. Much the same must be said of a subsequent chapter devoted to Schiller and Goethe. Schiller did no doubt dabble in the Kantian philosophy, and tried to give to his rather hazy and sentimental speculations on art a philosophic form. Goethe, who has given us some luminous *aperçus* with a good many high-sounding commonplaces, was not even as much of a theorist as Schiller. The supposition that the writings of these two poets constitute a distinct movement in the history of æsthetic philosophy requires a better justification than Mr. Bosanquet's account supplies.

As might be expected from what Mr. Bosanquet lets us see of his own standpoint, he is on congenial ground when dealing with the German philosophers. The æsthetic theory of Kant is taken to task for stopping short where it did, in the way which the new Anglo-German philosophic criticism has made familiar to us. Schelling is severely reprimanded for his philosophic wildnesses. Schelling probably had too much of the true artistic tempera-

ment, of which passionate imagination is the core, for our somewhat cold investigator into the *rationale* of beauty. Hegel's doctrine is given reverently with almost a complete arrest of the current of critical comment. His "treatment of the Ideal is (we are told) the greatest single step that has ever been made in æsthetics". With this chapter may be taken a later one which seeks to give an account of "the methodical completion of objective idealism" by a series of writers from Lotze to Hartmann. Here English readers are permitted to study one of the most curious branches of German speculation.

To be suddenly hurled from these speculative altitudes to consider such comparatively homely questions as those propounded by Fechner in his *Vorschule der Ästhetik* may well give the reader a shock. Mr. Bosanquet rather funnily groups together Schopenhauer, Herbart, and his disciple Zimmermann, Fechner, and Professor Stumpf, under the head of "Exact" Æsthetics in Germany. By exact æsthetics he seems to understand determination according to scientific methods of the elementary forms of the beautiful. On what grounds Schopenhauer is included here the writer hardly makes an attempt to explain. Anything more disparate than the metaphysical speculation of Schopenhauer and the psychological and psychophysical researches of Herbart and Fechner it would be difficult to imagine. The inclusion of the name of the rehabilitator of the Platonic ideas may perhaps help to save the chapter from the charge of giving too much importance to empirical science in a domain in which philosophy has achieved its most daring exploits; but I am unable to think of any other justification.

Mr. Bosanquet does not appear to be altogether at his ease in the psychology of art. He does not indeed make it apparent why he attaches importance to any of the characteristic lines of recent scientific æsthetics, and it seems to me that it would have been better if this chapter had been omitted. It fails in an almost ridiculous way to give any idea of the scope of these inquiries. Fechner's researches, for example, as his nomenclature sufficiently indicates, are psychological, that is to say, they aim at explaining the several contributing elements in the *enjoyment* of art. And what can be said of a historian who puts Prof. Stumpf prominently forward as a writer on the æsthetics of music, and makes no mention of what is probably the one complete treatise on the subject, *The Power of Sound*, by the late Edmund Gurney? There is a contemptuous reference to Herbert Spencer's theory of musical emotion, but none to that of Darwin. Helmholtz as a German presumably exact is of course extolled, but it is a pity that Mr. Bosanquet is not clearer as to the nature and result of Helmholtz's researches. He appears to think that they go to support the idea of Leibnitz and Schopenhauer that the perception of music is a sub-conscious process of counting, or grasp of numerical relations, whereas of course the

whole drift of Helmholtz's theory of melody and of harmony is to show that this is not the case.

Mr. Bosanquet's dislike of things English has one notable exception. He places Mr. Ruskin and Mr. W. Morris among the great writers on æsthetics. He has for the former, apparently, hardly less of reverent admiration than for Hegel, of whom indeed he seems to regard the English writer as a kind of supplement. What he says about this writer is interesting but raises difficulties. Mr. Ruskin's well-known theory of natural beauty illustrates no doubt Mr. Bosanquet's conception of æsthetic significance. But does it not illustrate it by making the significance essentially moral? There are those who think that the whole tendency of Mr. Ruskin's writings is to confuse the ethical and the æsthetic to an even greater extent than Plato in the doctrine against which Mr. Bosanquet has so vigorously protested. And in any case, Mr. Ruskin's enthusiastically moral, or perhaps one should say, religious way of contemplating beauty, falls a little awkwardly into the procession of the theories, and does not seem to be intimately related to the Hegelian view. One will be curious to see whether the German "*Æsthetiker*" will accept Mr. Bosanquet's account of the relation of the two.

With respect to the writer's own view of the nature of beauty, I regret to say that it remains, after a considerable effort to grasp it, somewhat indistinct. How a mere intelligible content or significance can in itself constitute what we call beauty without any reference to the value for us of the signification, whether this value be for our moral or for our æsthetic feeling, I cannot conceive, and Mr. Bosanquet's single assertion of an Englishman's independence of German influence in the inclusion of Ruskin's name seems to suggest that he too at moments feels the difficulty. I fail, too, to understand what is effected by trying to force the formal aspect of the æsthetic presentation under the significant. Every variety of harmonious combination has, no doubt, its value for imagination through its suggestiveness, but it is surely going too far to say that relations of proportion and the like owe their value to this circumstance. The tendency of the school to which Mr. Bosanquet belongs is apt to appear to those outside it just as one-sided in its own way as the abstract Greek formalism against which he contends. This is sufficiently illustrated in the complete inability of the theory to give any intelligible account of music. Hegel's own account of it is a curiosity, even in its *entourage* of curious speculation. Mr. Bosanquet is only able to improve matters by quoting the theory of Hanslick, as modified by Lotze, that music "embodies the general figures and dynamic element of occurrences". We commend this as a *rationale* of the source of musical value to the lovers of the art. I should like to add that Lotze, who was a genuine lover of music, never intended



to imply that the whole value of music resided in this circumstance. To Lotze the worth of things was vitally related to feeling, a circumstance which perhaps accounts for Mr. Bosanquet's complete omission of one of the most attractive names in German æsthetics. A similar limitation in the theory shows itself in relation to the æsthetic value of colour. With Ruskin and more recent English writers before him, Mr. Bosanquet cannot of course neglect the fact that mere colour has its beauty, but all that he says on this subject strikes me as strangely inadequate. When, for example, he speaks of red and green as complementary colours—just as if all or even the majority of the varieties of tint included under each of these terms were complementary to one another—and reproduces a rather hasty observation that red and green only pleases the child and the savage, the expert sees at once that Mr. Bosanquet is not at home in dealing with either the æsthetic or the scientific aspects of the phenomena of colour. The ethnological and, one may add, the zoological treatment of colour-selection, modest departments of inquiry which are, of course, never alluded to by Mr. Bosanquet, are probably destined to throw more light on the æsthetics of colour than all the philosophies have yet succeeded in throwing.

To sum up the impression which Mr. Bosanquet's book has left on my mind. It is a vigorous presentation of one philosophic theory of beauty, and it succeeds by dint of a good deal of forcing here and there in delineating up to a certain point the progress of æsthetic ideas as a gradual embodiment or realisation of that theory. But this is done to the sacrifice of its value as a complete, impartial history of æsthetics. It is not even complete as an exposition of German theory, and as an account of modern European ideas it is grotesquely incomplete. Nearly the whole of the luminous French writing on art is passed over in contempt, and what is most characteristic is English thought about the subject is either passed by altogether or slurred over with a fugitive allusion.

As I am bound to conclude that the book, able as it undoubtedly is, cannot be accepted as a history of æsthetics for Englishmen, I should like to say wherein I think it fails to meet the special wants of English readers. It has, I take it, been the predominant and characteristic way of English writers on æsthetics to think of beauty as no object of a merely intellectual apprehension, in which analysis can discover some fundamental principle, but as a rather vaguely defined group of forces which stir us to certain mixed, yet always pleasurable moods in which, just because our minds are thinking minds, intelligent apprehension plays its part, but in which the emotional always keeps the intellectual in abeyance. Our characteristic line of inquiry, from Hume to Darwin, has been to ask why art affects us in certain ways. A notable development of this English æsthetic inquiry was the



associational doctrine of Alison, who is not once mentioned by Mr. Bosanquet, though he may be said to have had as much to do as anybody in determining some of the directions of "Exact" Aesthetical inquiry in Germany. The enlargement of psychology by the application of the evolution hypothesis has enabled us to carry the inquiry further, and to refer the hitherto inexplicable effects of colours and of tones to transmitted association. In this way, as Darwin and Gurney have so ably shown in the case of music, we have come to understand why certain imaginative and emotive effects are produced in us, while at the same time, *ex hypothesi*, we are for ever precluded from referring these effects to definable constituents in the æsthetic presentation. Of this modest circumscribed way of dealing with æsthetic experience Mr. Bosanquet tells his readers nothing. So closely indeed does he keep to his fundamental position, that æsthetics has to do with discovering and defining a certain variety of intellectual, one is tempted to say, logical activity, that I cannot recall throughout the book a single use of the word emotion. Since the psychological treatment of art has in this country commonly fallen under the head of emotion, the omission sufficiently illustrates the writer's respect for this side of the subject.

In his steady refusal to consider art in its relation to what Englishmen at least in the main are agreed to regard as its end, pleasurable emotion, Mr. Bosanquet is not only unfair to the special philosophic services of his country, he gives a mutilated presentment of the field of æsthetic inquiry. What shall be thought, for example, of a writer who is bold enough not merely to follow the past evolution of the æsthetic consciousness but even to define the conditions of its future growth, wholly passing by what is perhaps the deepest, as it certainly is the most characteristic, feature of modern art, *viz.*, its humour? In this neglect of the emotive factor in æsthetic experience Mr. Bosanquet falls short of the comprehensive way of the best German historians and even of some of those whom he claims as objective idealists. Thus Von Hartmann not only recognises a class of *Gefühlsästhetiker* (to which, as might be expected, however he is far from doing justice) but he shows that Kant himself on one of his sides finds his place in this category.

JAMES SULLY.

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*Beiträge zur Psychologie und Physiologie der Sinnesorgane.*  
Gesammelt und herausgegeben von A. KÖNIG. Hamburg  
u. Leipzig, 1891. Pp. 388.

The eight essays comprising this volume have been collected and edited by Prof. König to mark the occasion of Helmholtz' seventieth birthday. No less than seven of them deal with

physiological or psychological optics : the remaining one with the relation of number to tone.

The more strictly anatomical and physiological articles need not detain us here. Prof. Javal (*L'ophthalmométrie clinique*) gives a short *résumé* of his recent work *Mémoires d'ophthalmométrie*; describing his modification of the instrument, the physiological results obtained with it and its clinical application. Prof. Matthiessen in a long and careful paper deals with recent advances in our knowledge of the optical structure of the vertebrate eye. Prof. Engelmann (*Ueber electrische Vorgänge im Auge bei reflektorischer und direkter Erregung der Gesichtsnerven*) gives an account of experiments carried out under his direction by Herr Grijus, which go to support the theory of van Genderen-Store and himself, that monocular stimulation in the frog affects the condition of the eye which has been protected from light, against the objections raised by E. Fick. The investigation is a good instance of *per exclusionem* physiological work; and its results are confirmed by the anatomical relations which Ramón y Cajal has found to exist in the case of certain birds.

Observations upon memory for tone led Prof. von Kries to the consideration of the laws of memory for sense-impressions in general. In an article in the present volume (*Beiträge zur Lehre vom Augenmass*) he deals with the cognition (as distinct from the comparison) of space-magnitudes by the eye. His first series of experiments bore upon the question of the dependence of our estimation of the size of a seen object upon the nature of the object. The error conditioned by this dependence is not so great that it cannot be corrected. Another set of experiments was carried out, in order to decide whether the idea of linear magnitude is determined by simultaneous vision of the whole length (or of the two terminal points) or by movement of the eyes. The former proved to be by far the more important factor in the result, but a considerable degree of accuracy can be attained by means of eye-movement alone. As regards the investigation of the latter, it must be remarked,—indeed, the author himself calls attention to the point,—that the tendency towards a memorial representation of the whole length is exceedingly strong: even where the eyes follow the moving mark, the starting-point may be memorially localised. Thirdly, there came up for solution the problem, how far the estimation of magnitude, which the previous experiments had measured, depends upon the visual angle, and how far upon the distance of the seen object. The writer found that a direct cognition of the visual angle is, with certain definite exceptions, as good as non-existent in consciousness. Even the comparison of visual angles, given in immediate succession, is difficult. He contrasts this very noteworthy case of fusion in psychological optics with the conditions obtaining for the other senses, and especially for that of hearing. The whole discussion is interesting and suggestive: finality is not claimed for it.

Prof. Uthhoff gives an account of the visual education of a seven years old boy, born so far blind that he could only distinguish light and dark, on whom he has successfully operated. The paper is divided into thirteen sections, each dealing with some special feature of the case; so that a comparison with the results of previous observers is facilitated. A large part of the protocol deals, of course, with the formation and retention of associations of visual ideas to spoken words. In the chapter on cognition of colour the author seems to have confused this process with that of sense-discrimination itself. An interesting comparison is instituted between the patient, whose mind was, apart from his blindness, very undeveloped, and a normal child of eighteen months, as regards cognition of objects and colours. That the boy had no idea of the plastic, even in terms of the sense of touch, is accredited by Prof. Uthhoff to his defective home-education: but it would rather seem to be an extreme instance of what is a general characteristic of the blind consciousness. Even when the patient is educated to the pitch of naming the form of objects according to touch, his ideas do not in any sense correspond to those of seeing persons. It is to be regretted that direct experiments were not made to determine the part played by hearing in aiding orientation in space. In unknown localities it is said that the boy relied exclusively upon his sense of touch; but the conditions do not seem to have been such that the assistance of hearing could have been called in.

There are many observations recorded in the course of the paper, which will be of great use to the psychologist. It is impossible here even to note them. Unfortunately, the patient's mental unripeness precluded the execution of a number of valuable experiments. The author is of opinion, from results gained in other cases, that the blind do not possess a finer touch-discrimination than normally endowed persons. This appears now to be pretty well established: indeed, a great deal of the touch-psychology of the blind is as mythical as the acuteness of vision ascribed to sailors. As regards dreams, another of Prof. Uthhoff's patients (twenty years old; blinded at two and a half) stated that she hardly ever saw in them; if she did, her optical images of persons were as dim and vague as the actual percepts. In general, she heard only the voice.

Prof. Lipps' "*Ästhetische Faktoren der Raumanschauung*" deals with optical illusions. There are in the field two theories of the origin of such illusions. According to that of Wundt, a very large number of them are explicable from the sensations attending movements of the eye; according to that of Helmholtz, they are to be regarded as deceptions of judgment. Prof. Lipps takes up the latter position, which he formulates as follows. (1) If experience has compelled us in a great majority of cases to form a certain judgment about a space-form, which is presented to our perception, we are inclined to carry this judgment to

analogous cases, when its special determining reasons are absent. (2) If this latter result of an unconscious analogy-inference appears sufficiently convincing and immediate, we are unable to dissociate it from the content of our perceptions. "So that we do not only think that a square is higher than it is broad, but we believe that we *see* this difference."

The initial objection, that this terminology does not cover the psychological processes involved, may be passed over. Prof. Lipps goes on to define more particularly the principle which he invokes for the explanation of the illusions in question. Experience has taught us to see in every line the activity of some force, the direction of some movement; we regard it, so to speak, as living. Putting this force and movement into lines, we naturally put their results into the lines, and into combinations of lines also. Aesthetical consideration makes of the formal unity of lines, which compose a figure, a unity of fact or content. The figure represents, then, a unity of force or movement. The apprehension of this conditions the optical illusion in the special instance. The author passes under review the square and right-angled parallelogram; the influence of connecting (*zusammenfassend*) lines; simple curvilinear forms; free convergence and divergence; oblique lines; divergence from a point; angles made with the horizontal; the circle; continuous linear connexion (spiral forms); and common forms (the S and 8 illusions).

It would plainly be impossible, within the limits of the present notice, to follow Prof. Lipps from instance to instance in detail. What is undoubtedly right in his argument is, I think, the emphasis laid on the association-factor in our interpretation of optical perceptions. We can hardly see a simple geometrical figure without in some way interpreting it by association. But that this interpretation in every case follows the lines laid down by the author is more doubtful. It is for the simplest figures that the principle seems to fail. According to it, we over-estimate the height of a square, because we place in it the upwards-striving activity, the result of which is to narrow the figure: and we hit on just this activity, because it has the æsthetical advantage; it is the activity of positive achievement. Yet, if we see the square as a fallen block of stone, the illusion remains. Again: a vertically striated square appears lower than the same square in outline. According to Lipps, this is because we get from the series of vertical lines the idea of an inhibited upward force, a striving against a downward counter-force. In these two cases, an explanation from Wundt's standpoint is surely preferable. And in every case where we *can* point to physiological, *i.e.*, mechanical conditions, is it not a sound rule to emphasise these?

In many instances where we certainly do read a force or movement into a figure, this force would seem to be bound up with a material association, rather than resident in the lines of the figure as such. Thus Fig. 7 in the present paper suggests a

flying kite; and the illusions of p. 246 wax or wane according as we think of the forms as outlines of elastic or of rigid bodies. In other words, as urged above, the force-association is only one of the many possible associations, by which we fill out and interpret the optical perception.

In other cases, the checking or furtherance of the movement of the eye along a line, conditioned by the terminal connexions of the line, appears to determine our estimation of its length (*cf.*, however, what the author writes, p. 285). A good instance is the arrow-head and feather illusion. Here, too, we need not think of a force inherent in the lines. It is we who tend to move, not they.

For Figs. 26 and 27 one might have recourse to the old principle that an unfilled space always appears shorter than a filled space. In these examples the illusion is also aided by association. Especially interesting are the explanations given of the over-estimation of small angles, and of the S and 8 illusions; though the arguments in the latter case do not seem more convincing than analogy-arguments in general are.

The paper is valuable for its method as well as for its content. The only way to reduce the phenomena of optical illusion to order is to examine the examples separately, and with all possible variation; and then to arrange them under different rubrics of explanation. But it is, perhaps, a justifiable criticism upon Prof. Lipps, to say that he has fallen into the opposite extreme to that which he blames in the case of Prof. Brentano. It is as dangerous to seek for one explanation of the whole number of phenomena, as it is to set up as many explanations as there are separate illusions. Still, "æsthetic" is a wide term: and the author has used it elastically.

The last article in the volume—"Ueber den Helligkeitswert der Spectralfarben bei verschiedener absoluter Intensität: nach gemeinsam mit R. Ritter ausgeführten Versuchen, von A. König"—presents no easy task to the critic. This is due partly to its general character, which is at once preliminary and technical: partly to prerequisites;—it presupposes a knowledge of the recent work of Hering and his school, and of the followers of Helmholtz. All that one can hope to do is to give a general notion of the results obtained in the course of the research, and of the conclusions drawn from these by the author.

The paper is divided up into sections. (1) *Introduction: historical.* Two points are to be noticed. (a) The Fraunhofer curve of the distribution of brightness in the spectrum, and the curve obtained by Vierordt, which gives the amount of white light that must be added to the various colours of the spectrum in order to bring about a just noticeable diminution of their saturation, are practically identical. This points to a connexion between the two sets of phenomena. (b) Purkinje's observation, that if, setting out from two differently coloured fields of equal

brightness, one alters the intensity of the objective stimulus equally in either direction, the intensity of sensation undergoes less change in the region of short waves than in that of long waves, was shown by Brodhun not to be valid in the same degree for all intensities. With increasing brightness of the compared colours the phenomenon decreases. The present work is a direct continuation of that of Brodhun ("Beiträge zur Farbenlehre," 1887). (2) *Apparatus*. The Helmholtz colour-mixer (a double spectroscop with two collimators) was employed, with modifications. (3) *Method of investigation*. The curve chosen is the curve of "equivalent slit-widths," or (reciprocally) the curve of "brightness-values". This curve seemed to the author to represent the most accurate method; though there are three defects in this latter. (a) The comparative calculations of the different illuminations of the slit admitted greater errors than those which are made in the estimation of equal brightness in different colours. But this affected the ends of the spectrum principally. (b) The apparatus employed did not allow in many cases of the production of the comparison-brightness over the whole spectrum. (c) The curve of equivalent slit-widths presents graphic disadvantages. This is met by its reduction to the curve of brightness-values. The determination of the brightness-value of the monochromatic field (comparison-brightness) is also not free from objection. (4) *Experimental results*. The results were obtained from two normal trichromatic reagents, and from two dichromates (green-blind and red-blind). (5) *General consideration of these results*. With alteration of intensity the curve of brightness-values alters its form. On the Young-Helmholtz theory of colour-sensation, the brightness of a spectral colour is a homogeneous linear function of the ground-sensations. The form of the curves of distribution of the ground-sensations in the spectrum differs with differing intensity. Whether this fact alone explains the variation of the curve of brightness-values is uncertain. On Hering's theory, the brightness of a spectral colour is the algebraic sum of the brightnesses of its white and coloured valences. The writer cannot find agreement between his results and Hering's view. (6) *The distribution of brightness-values in the spectrum at a high intensity*. (a) It was found that total or approximate identity of the colour-equations of two persons is in no sense a criterion of the similarity of their heterochromatic brightness-equations. (b) If the brightness-value of a colour is a homogeneous and linear function of the intensity of the ground-sensations, then in the case of two persons, for whom the spectral distribution of brightness-values is different, but whose colour-equations are the same, either the coefficients of this function or the spectral distribution of the ground-sensations must be different. These alternatives have not been tested; but experiments speak for the existence of the dependence originally assumed. (7) *The distribution of*



*brightness-values in the spectrum at a very low intensity, and its relation to congenital monochromatic colour-systems.* (a) On Hering's theory, total colour-blindness means the absence of the colour-valences of light. The curve of brightness-distribution in the spectrum will then be identical with the curve of white valences. This is the case. On Helmholtz' theory (as modified by Brodhun), the phenomenon implies that the decomposability of the three photochemical substances is for the three monochromatic colour-systems at mean intensity what it is for other colour-systems at very low intensity. (b) The curve of brightness-distribution at such an intensity is approximately the same for monochromatic, dichromatic and trichromatic systems. (8) *The lower limit of stimulus.* The character of the colour-system has no influence in this connexion. (9) *Determination of the brightness-values in a spectrum with uniform distribution of energy.* A tentative construction of the curve of energy-brightness-values, on the basis of Langley's experiments. (10) *Partial colour-blindness, and its explanation by the theory of antagonistic colours.* A criticism of Hering's explanation of individual differences by the absorption-relations of the media of the eye, and of the pigment of the *macula lutea*. (11) *Total colour-blindness, and its explanation by the theory of antagonistic colours.* Hering ascribes different brightnesses to the different ground-colours. Hence his explanation of total colour-blindness (see § 7 above). But the writer finds that, in some cases at least, the loss of the colour-sensation proper makes no difference in the brightness-values of different lights. (12) *Conclusion.* The investigation brings additional evidence to show (a) that, on the Young-Helmholtz theory, the form of the curve of the ground-sensations must vary with its brightness. The dependence has still to be determined. (b) It contains observations which are not to be reconciled with Hering's colour-theory.

Much obvious criticism is disarmed by the author's plea of tentativeness. The article has all the interest attaching to a discussion of the burning question in psychological optics. The general impression left on the reader by this or by other papers is, that much more remains to be investigated than has been investigated before a final settlement of the difficulty is possible.

There remains to be mentioned Prof. Preyer's contribution to the volume: "Ueber den Ursprung des Zahlbegriffs aus dem Tonsinn, und ueber das Wesen der Primzahlen". This, like Prof. König's paper, is of the nature of a preliminary communication: a full treatment of the subject is promised at a future date.

The ordinary view, that the series of positive whole numbers originally arose from the addition of one to one, is regarded as incorrect. Rather is it the fact, that the number-concepts follow from the hearing and comparing of tones; and that they are fixed in consciousness later by the aid of the senses of sight and touch. In the physical conditions of the organ of hearing is



given the possibility of an unconscious counting or estimating, so that the small whole numbers would be names for the most satisfying "feelings of tone-interval". During the process of differentiation of its hearing-sphere, the baby hears tones, clangs (especially vowels), chords, scales, melodies (cradle-songs) and unharmonious sound-complexes; and these sensations are attended by the unconscious number-feelings. The zero-concept corresponds to the identity (not-difference) of sensations. The ground-tone could be designated by a stroke, /; the octave by //, expressing its agreement with and difference from the ground-tone; the fifth would receive the sign ///; the double octave ////. The child that hears the tones *C c g c*, in succession, has the number-feelings of 1, 2, 3, and 4. And so with the greater numbers.—The process of arithnogenesis is not described by the author in detail. As it stands, the theory recalls his parallelising of the scale of temperature—sensations with the colour series.

These considerations lead to a discussion of the nature of the prime numbers. Prof. Preyer comes to the conclusion that the natural number-system must consist of seximembral periods. He gives a scheme of this system, which renders easily possible a determination of the genetic and formal properties of any number, and by the help of which he proceeds to solve various arithmetical problems.

E. B. TITCHENER.

## VII.—NEW BOOKS.

*Outlines of Psychology.* By JAMES SULLY, M.A., LL.D., Grote Professor of the Philosophy of Mind and Logic at the University College, London; Author of *Illusions*, &c. New Edition, revised and largely rewritten. London: Longmans, Green, & Co., 1892. Pp. xx., 490.

Prof. Sully has considerably improved his well-known *Outlines* by revising it throughout with close reference to his more extended work on *The Human Mind*. He also omits in the present edition the pedagogical paragraphs, which, excellent as they were, can now be dispensed with; the author's *Teacher's Handbook of Psychology* offering the educationist a fuller treatment. We are glad moreover to see in the present volume the beginning of an attempt to assist the student unfamiliar with anatomical works by a few clear diagrams illustrative of the nervous apparatus and functions. He has also certain diagrams illustrating visual illusions. Professor Sully will, we think, do well to continue the experiment by furnishing similar aids in regard to the Senses and Sensation generally.

The author has acted judiciously in limiting the number of references to other works throughout the book; so that the separation is now well marked between the *Outlines* as a first book for psychological students, and the treatise entitled *The Human Mind* where the subject is elaborated with full regard to the demands of the more advanced reader.

The book, as now arranged, consists of five parts:—I. Introductory; II. General View of Mind; III. Intellection; IV. The Feelings; V. Conation or Volition; and one Supplementary Note—"Psychology and Philosophy of Mind: Mind and Body". The history of Psychology is duly subordinated, as is fitting in a manual for beginners. We notice also that the Abstract Sentiments are very cursorily touched upon. This is right in principle, as they cannot be adequately dealt with without transgressing the limits of Psychology proper, and Prof. Sully has evidently been at pains to keep the provinces distinct of empirical science and philosophy. The concluding chapter contains some reference to abnormal phenomena of mind, which is entirely wanting in the former editions; perhaps the author may hereafter see reason to extend the treatment of this somewhat neglected branch of Mental Science.

The book in its present shape forms a very handy volume, and will no doubt receive a cordial welcome from students and teachers.

*The Ethical Philosophy of Samuel Clarke.* By J. E. le ROSSIGNOL. Inaugural dissertation presented to the University of Leipzig for the degree of Doctor of Philosophy. Leipzig: G. Kreyzing, 1892. Pp. iv., 97.

This is a welcome contribution to the history of Ethics in England. It begins with a lucid and generally accurate sketch of the progress of ethical thought from Bacon to Locke. This is followed by an account of Clarke's life, with special reference to the circumstances under which his various works were written and published. The influence of preceding and contemporary writers on his philosophical views is next discussed in

a careful and interesting way. He is rightly said to be in general agreement with Cudworth, Cumberland, and Locke in "his conception of the importance of Ethics, his attempt to reduce morals to an exact science, his method of investigation, and the results he announced". His debt to Plato and to the Stoics is well brought out.

The detailed exposition of Clarke's Ethical System occupies rather more than half the essay. It is very full, clear, and careful. The doctrines of the differences of things, the fitness of things, moral perception, moral obligation, and the chief good are treated in succession. Of course the main interest centres in the conception of "fitness of things". This *fitness* Mr. le Rossignol "ventures to define" as "a quality of things (persons and actions) in their relations to one another, which, when perceived or thought of as a possibility, necessarily commands our approval; and the absence of which necessarily commands our disapproval". The fault of this definition is that it distinguishes two things which Clarke apparently identifies—approval and perception of fitness. It appears, however, from the context that Mr. le Rossignol is aware of this objection, and that his tentative definition is meant rather to express what Clarke ought to have said than what he actually did say.

Clarke's admission of a utilitarian element into his doctrine side by side with his predominant intuitionism is clearly pointed out. Clarke accepted partially the utilitarian standard by making the "welfare of all men" an end fit in itself, and actions fit or unfit in reference to it; but he also attempted to show the direct fitness of particular actions.

The book closes with an interesting discussion of the influence of Clarke's ideas on later thinkers; especially on Wollaston and Price. We hope that the author will follow the line of study which he has undertaken, and that he will give us a general history of English Ethics.

*Education from a National Standpoint.* By ALFRED FOUILLÉE. Translated and edited by W. J. Greenstreet, M.A. Edward Arnold. Pp. xii., 332.

The author of *L'évolutionisme des idées-forces* here gives his views on the proper subjects and methods of secondary education. He chiefly has in view schemes and schools in France. But the book is of special interest to our readers, because of his employment of philosophical doctrines in sketching the aims and available forces of educational discipline, and also because of the prominent place given to a philosophical curriculum in his recommendations.

The "National standpoint" distinguishes the book from current theories as to the best education for individuals considered as units, and also from discussions as to the best means of forwarding the development of humanity in the abstract. Fouillée takes as the goal of educational effort the preservation and improvement of a national intellect. He has, of course, the most impressive of all precedents to follow, Plato's. The book is brilliant as an exposition, suggestive and full of new sayings, quotations, and allusions. There are five main divisions, each having a distinguishable concern of its own: Education in its aspect as Psychological and Social Selection, Scientific Humanities, Classical Humanities, Modern Humanities, and Philosophical and Social Sciences. But the treatment is more remarkable for psychological insight than for logical plan, or even for explicitness in the matter of proofs.

The power of education over the intellectual and moral character is first discussed, and is interpreted as a process of selecting dominant ideas, analogous to Natural Selection in the organic world. Under the

title Social Selection comes the assignment of the classes of society to which the ideal education must be applied.

Primary education cannot be severed from a certain utilitarianism, because its object is the necessary; but secondary education should develop faculties and supply "highest truths and loftiest sentiments". Consequently the study of science as well as that of language, history, and literature should be "humanised". Science, however, cannot do for faculty and character what classical literature can, and this latter must remain the basis of secondary instruction. But science, literature, and history alike must be so learned as to interweave with ethical and philosophical ideas. And finally a specific curriculum in sociology, ethics, psychology and philosophy must round off the scheme. They will supply a point of common reference, an organising principle, a channel of intellectual sympathy, between the widely diverging and subdividing interests and studies of practical life. And to the teacher they are one of the professional qualifications.

We believe that M. Fouillée's advocacy of philosophical studies is as sound in its psychological reasons as it is forcible and felicitous in expression.

*The Problem of Reality, being outline suggestions for a Philosophical Reconstruction.* By E. BELFORT BAX. London: Swan Sonnenschein & Co., 1892. Pp. 177.

The salient points of this book are its assertion of absolute idealism and its polemic against panlogism. The absolute idealism is stated as follows: "Turn the matter which way we will we cannot get away from the fact that all Reality is nothing but categorised Feeling, or, in other words, it is nothing but a Co-ordinated whole or system of modes or inflexions of Consciousness. But all consciousness is simply the determination of the Ego," which is "prior in nature" to its own determinations, and "therefore to Time and to that which arises out of Time, namely, Number". There is nothing in this which is not familiar. But Mr. Bax appears to us to effect his resolution of things into determinations of consciousness in altogether too cheap and easy a fashion. According to him "an unknown Reality that, by its very nature, cannot become a content of consciousness or be known, is a contradiction in terms". It is here assumed that being known is synonymous with being a content of consciousness. Now the principle involved, so far from being evidently true, is evidently false. It belongs to the nature of thought that it should refer to something which is not at the moment in the consciousness of the thinker. Thought qualifies its object by means of a part of the momentary content of consciousness. But this content, just because it is, as Mr. Bradley would say, adjectival to the object cognised, cannot itself be identical with this object. Mr. Bax may reply that every reality must be at least a potential content of "consciousness-in-general". We are not disposed to contest this position; we simply deny that being a potential content of "consciousness-in-general" can be legitimately identified with being a potential object of thought-in-general.

Mr. Bax is on the whole happy in his criticism of the panlogism, which attempts to explain away the material, contingent and "allogical" element in reality and to make thought or the concept-form absolute. In chap iv., on "Chance and Law," he argues with great force and clearness that "actual happening in space and time" involve an irreducible "Chance-element," a fatality in things which must be accepted and cannot be explained. Freedom of the will is referred to the contingent

or allogical element in human actions. The dialectic process which continually finds and reconciles contradictions is explained as due to the initial opposition and final reconciliation of Feeling and Thought. The logic of *pure Thought* is, according to Mr. Bax, ordinary formal logic.

*Der echte und der Xenophontische Sokrates.* Von KARL JOËL. Erster Band. Berlin: R. Gaertner, 1893. Pp. 554.

It is an old problem which Herr Joël once more propounds in this scholarly treatise. We all assume that the Platonic Socrates was no living man, but an ideal: a monument of genius, an effort of the constructive imagination on the boldest scale. But can we trust the more homely, though still fascinating portrait which Xenophon has drawn? In its main outlines, certainly, answer the teachers of the present day, while admitting that there was much in the master that was far beyond his honest pupil's comprehension. Here Herr Joël joins issue.

An examination of the religious views of Socrates discloses a rationalist with a tendency to maintain the unity of God and to oppose popular superstition, replacing the outward forms of worship by a good conscience, and the consultation of the oracles by the direction of an unerring instinct (the *daimonion*). Whence it is inferred that the simple piety and superstition which finds expression in the *Memorabilia* is either Xenophon's own view or a compromise between himself and his master. Possibly the distorted picture presented by Xenophon is the object of attack in certain of Plato's dialogues: at all events the conception of Piety which we find in the *Memorabilia* is exactly that of Euthyphro in the dialogue called after him (14 B), the "commonplace" type of Republic 442 E. Similarly with the theory that Virtue is Knowledge: that Socrates meant this, paradox as it appears, is rigorously maintained, and in the sense intended in the traditional account preserved in the Peripatetic school (down to and including the author of the *Magna Moralia*). Following these guides we conclude that the historical Socrates did really overlook the irrational and impulsive element of the soul (p. 239); *i.e.*, he did not of course deny its existence, but in his philosophy he ignored it. This makes short work of many chapters in the *Memorabilia*, where Socrates' exhortations to virtue and self-control are almost as dogmatic as a modern sermon. Certainly the Socrates of the Charmides, Euthyphro, and Laches does not preach, and Xenophon (*e.g.*, in the *Cyropædia*) often does. Further, the historical Socrates was, we are forced to conclude, a pure dialectician, constantly inquiring: What is it? His influence, instead of being directly ethical, tended all to enlightenment, and to clear away the false conceit of knowledge. For the conception of Socrates as a preacher of morality, Antisthenes, it is shown, is quite as responsible as Xenophon, and traits of Antisthenes are discovered in Dio Chrysostom.

These results have been attained in the first of two volumes, of which the work is to consist. They apparently postulate unwavering consistency in Socrates, and a perfect correspondence between his life and theories. But the author himself requests that criticism may be deferred until the completion of the work.

*Le Monde Physique. Essai de Conception Expérimentale.* Par Le Dr. JULIEN PIOGER. Paris: Félix Alcan, 1892. Pp. 174.

The author clears the way for his theory of the constitution and origination of the Universe by exposing the fundamental errors of the

older Metaphysics. Shortly expressed, they amount to the assertion of an Absolute, whether absolute Subject or absolute Object. The belief that there is, and must be, a noumenon or "thing in itself" has been the main cause of the perplexities alike of the rational ontologists and of empirical scientists. The nature of knowledge, however, shows it to be illusory, cognition implying at once object perceived and subject perceiving. The student of physical science is no more free from the delusion than the *a priori* thinker, for so far he has been unable to shake himself free from the assumption that phenomena have individual and permanent substrata. Infinity and Substantiality are in fact—to speak in Baconian language—idols equally of the den and of the tribe. But, our author contends, the Infinite as a positive conception is inherently unthinkable. Thoughts and Knowledge being always of differences and of relatives, the term "infinite" cannot be applicable to object cognised; but signifies that to our knowing there is no assignable limit. So Substance is an inappropriate term if taken to mean the ultimate support of objects, for of such we know and can know nothing; to have significance it must be translated into *objectivity*, for this after all is what common-sense and speculative thought are strenuous in maintaining.

Dr. Pioger finds the misleading sense of Substance at the bottom of current ideas of the constitution of the material world. The atomic theory of the physicist and the chemist obtains its plausibility from the obstinate tendency of mankind to believe that there cannot be movement without a something moved, and that objects can exist *per se*. But these are assumptions, superfluous and unintelligible. All we perceive is movement, and movement is a relative term implying two consecutive appearances in varying space-relations. The author would substitute for the atom the "infinitesimal"; which is neither an ultimate corpuscle endowed with properties, nor a pure force-centre; but "the extreme reduction of the relations which constitute things; it does not correspond to a thing, simple and substantial, but it is the expression for the infinitesimal relation of that which we call—movement, extension, ponderability, under the general name materiality."

The ultimate relation is a couple which must be conceived dynamically. The analysis of the physical universe yields innumerable pairs of infinitesimals whose equilibrium forms a couple, or system of potential energy. The author refers to recent physics for a justification of his position from the point of view of science. As, further, the couples being equilibrated are in the relation of mutual dependence, they form a Unity or Whole, and accordingly we obtain the *raison d'être* of Individuality. The author's ultimate principles, then, are Determinism, Equilibration, Solidarisation. Determinism, inasmuch as universal dependence is not only exceptionless in experience, but is an essential condition of a Cosmos; Equilibration, as alone affording a sufficient cause for the genesis of the Universe. (Before equilibration the ultimate infinitesimals have conceivably all directions, the diametrically opposite among others; and when this last obtains we have of mathematical necessity the rotating or equilibrated couple.) But the last word is "solidarisation". The Universe of Things cannot properly be said to exist till there is individualisation, and Solidarisation expresses the fact that the ultimate couple is a unified whole. "So that Solidarity is the necessary condition of all individualisation, of all that exists, since we cannot conceive the possibility of anything absolutely simple 'in itself,' and the solidarisation of the components is the necessary condition of the formation as of the existence of everything composite, not only in the physical world, but still more in the organic realm of Life and Thought, as well as in the social organism and the moral world."

*La Suggestion dans l'Art.* Par PAUL SOURIAU, ancien élève de l'École normale supérieure, Professeur à la Faculté des Lettres de Lille. Paris : Félix Alcan, 1893. Pp. 348.

The first sixty-seven pages of this book are occupied with a discussion of Hypnosis in relation to Art. There is much, the author considers, in the æsthetic mood and attitude that reminds strongly of the hypnotic condition and induced ecstasy. All artistic influence is of the nature of fascination, and we seem never so ready to yield to its spell as when the critical faculty is in abeyance, and we surrender ourselves to the suggestion of the moment. Then time and space vanish, and we become one with the objects of our dreams, or the products of nature or art. The writer insists with great force on the necessity of utter abandonment for the enjoyment of æsthetic effects. The true æsthetic contemplation is of the nature of religious enthusiasm, to which all discussion and dissection are a profanation.

The author does not press the analogy between the phenomena of hypnotism and of artistic suggestion, although with great show of reason he considers the former not unimportant in bringing out the full force of the latter. The second part of his work, his main theme, is to be estimated quite independently of the very interesting introductory pages. It is divided into five chapters : Visual Suggestion, Auditive Suggestion, Suggestion of Images, Suggestion of Sentiments, and Changes of Personality.

Visual Suggestion is treated at considerable length. The author betrays an intimate acquaintance with the conditions of pictorial art, from the side both of the artist and of the beholder. He insists repeatedly that "to recognise exactly the appearance of things we must paint them as far as possible, not as we think we see them, but as we really perceive them". But M. Souriau does not consider that pictorial art has accomplished its end when it satisfies the requirements of the visual sense. "I will go further. I wish the artist to render for me not only the form of objects and their colour, but also all those accessory sensations which are characteristic of every object, the moisture of the flesh, the velvet of a fruit, the chillness of the stone, and the noises and perfumes. If he is satisfied with making me see things without making me feel them, this superficial imitation will be for me without interest. I shall not find again nature therein."

After dealing with æsthetically transformed perceptions the author investigates the artistic clothing of representative images. The force of verbal suggestion is aptly illustrated from the poets and great prose writers. Here, of course, Allegory and Metaphor come in for a share of study. Then the arts of persuasion are briefly touched upon. After which a return is made to Music, to indicate the sources of its power to influence the feelings. Then the function of the Drama is described, which leads up to the last topic—the mysterious changes of personality, which are illusory effects within the experience of the least imaginative. The romance-reader, the theatre-frequenter irresistibly lose the consciousness of their personality, but these are only typical cases of a universal tendency to identify ourselves with everything animate that engages our sympathy. And the novelist and the dramatist cause this metamorphosis in proportion to the extent to which they have themselves lost their individuality in the objects they depict.

The last pages are devoted to the subject of "Artistic Observation". The author remarks that it is sometimes said that Art is Play ; if so, he adds, it is very serious play. He cites instances to show that the greatest works of art are produced with agony, under the incentive of a



haunting spirit that will not be laid to rest till the wish is achieved. The book is replete with fine psychological observations, and gives evidence that the author is a man of large culture.

*L'Imagination et ses Variétés chez l'Enfant, Étude de psychologie expérimentale appliquée à l'éducation intellectuelle.* Par P. QUEYRAT, Professeur de Philosophie au collège de Mauriac. Paris: F. Alcan, 1893. Pp. 157.

The author in the first 89 pp. describes the visual, audile, and motile types, with the usual kind of illustration. He then proceeds to consider the pedagogic application of the doctrine that different kinds of imagery predominate in different persons. He lays it down as a general principle that only visuals can have a special aptitude for such pursuits as the arts of painting, sculpture and architecture, or the natural sciences, or mathematics, that only audiles have special aptitude for music, spoken languages, versification, and that none but motiles have bodily dexterity. If we take into account power of attention and judgment, as well as the predominating character of mental imagery, in a child, we shall be able to determine the studies for which he is especially fit. But the undue preponderance of this or that kind of imagery is in many respects dangerous and disadvantageous. It should therefore be the aim of the educator to cultivate all three kinds. The main criticism we have to offer is that the practical postulates connecting different types of imagery with aptitudes for different pursuits require to be carefully sifted and examined instead of being taken for granted as they are by M. Queyrat.

*Le Problème de la Mort, ses solutions imaginaires et la science positive.* Par L. BOURDEAU. Paris: F. Alcan, 1892. Pp. 354.

M. Bourdeau passes in review the doctrines of a future state found in religions and systems of philosophy. Such doctrines appear to him to be mischievous illusions which injure morality by leading it astray into false paths. His practical Conclusion is: "Let us know how to live, and let us not refuse to die. If we are friendly to death, it will be friendly to us."

*Die Hauptgesetze des menschlichen Gefühlslebens. Eine Experimentelle und analytische Untersuchung über die Natur und das Auftreten der Gefühlszustände nebst einem Beitrage zu deren Systematik.* Von A. LEHMANN, Dr. phil., Docent der Experimentellen Psychologie an der Universität Kopenhagen. Unter Mitwirkung des Verfassers übersetzt von F. Bendixen. Leipzig: O. R. Reisland, 1892. Pp. x., 356.

Full notice of this important book will appear in the April number of MIND. It is a work which no psychologist ought to neglect. The nature of feeling and of its psychical and physiological conditions and consequences are considered in pt. i., which contains an account of important experiments on the physiological concomitants of pleasant and painful experiences. In pt. ii. the "special laws of feeling" are investigated. The conception of this part of the work is to a large extent original and the results obtained are interesting and valuable. In pt. iii. a classification of the emotions is given, which seems to be a distinct advance on previous attempts of the kind. Mr. Lehmann may be congratulated on having produced a luminous and instructive work on an obscure and difficult subject.

*Acht abhandlungen Herrn Professor Dr. Karl Ludwig Michelet zum 90 Geburtstag als Festgruss dargereicht* von Mitgliedern der Philosophischen Gesellschaft zu Berlin. Leipzig: C. E. M. Pfeffer, 1892. Pp. 102.

The essays contained in this collection are as follows: "Realismus und Idealismus in der Kunst," by A. Lasson; "Die Musikwissenschaft und die Hegelsche Philosophie," by G. Engel; "Über das höchste Gut," by F. Kirchner; "Wie steht es jetzt mit Philosophie und was haben wir von ihr zu hoffen," by W. Paszkowski; "Hegel und Franz von Baader," by M. Runze; "Was heisst Denken," by G. Ulrich; "De legis apud Paulum apostulum notione," by F. Zelle. Besides this a letter is published, written to Michelet in 1837 by Count Cieszkowski, and a full and careful bibliography of Michelet's works done by F. Ascherson brings the pamphlet to a close. Of the essays, that by A. Lasson is the most interesting. But the general impression they produce on us is that latter-day Hegelianism in Berlin is in a somewhat feeble condition.

*Die Grundbegriffe der Gegenwart. Historisch und kritisch entwickelt.* Von RUDOLF EUCKEN, Professor an der Universität Jena. Zweite, völlig umgearbeitete Auflage. Leipzig: Verlag von Veit & Comp., 1893. Pp. vi., 317.

This is a thoroughly new edition, save as regards the general spirit, of a work that appeared fifteen years ago. It is an impartial but unquestionably earnest examination of the prevailing tendencies with regard to the great speculative and practical problems. Its note is idealistic, but not subjectivist; indeed the author considers that one of the most dangerous signs of the times is the disposition to make light of objective truth, and to be content with the vividness and glow of private opinion. Even a writer like Lotze, with all his loftiness of tone and endeavour after intellectual comprehensiveness, is pronounced a dubious guide, as measuring the world's value by its capacity to enrich the life of individual feeling. But Feeling, however refined and exalted, the professor urges, will never satisfy the craving of the whole nature. That the world must be taken up into self is undoubted; it is a cold external thing unless it can in some way have a value for immediate consciousness; but the question is whether this Self, with its cravings for satisfaction, even intellectual, be the pivot on which Reality is presumed to revolve, or the spiritual life be regarded as an essential part of Universal Life. The first section, entitled "Subjective—Objective," is full of apt distinctions, and reveals unusual power of steering between Scylla and Charybdis. "In the last result we come to this, that a detached and self-directed subjectivity, even with the utmost refinement of conception, affords our life neither a firmer foundation nor a sufficient content. Still less is this obtainable from mere objectivity."

The author subjects the notion of Development to close examination, and answers three propounded questions: "(1.) Is there not in the idea of Evolution much obscurity and confusion? (2.) Has not the extension of the evolution-idea limits? (3.) What internal expansion does the evolution-idea require?" The present notice does not allow of an intelligible abridgment of Prof. Eucken's replies to these weighty questions. It must suffice to say that while he fully appreciates the importance of the idea of Evolution so far as life in time is concerned, he thinks it a fatal error to extend it so as to cover universal life. "To draw this life of the spirit itself into the evolution, in particular into

empirical evolution, is to surrender all worth and estimation, all inner necessity and independent impulse—in a word, this reason of existence." "The spiritual content of our life unfolds itself certainly in connexion with history, but it does not grow out of history."

Certain important practical questions are also treated. There is a chapter entitled "Individuality—Society—Socialism". In opposition to the tendency of the day to merge the individual in society, Prof. Eucken contends stoutly for the moral independence of the individual as essential to a genuine society. He would be just to both the aristocratic and the democratic tendency. The importance of the former as regards the æsthetic aspect of life is to him clear; it presupposes, however, stable and consolidated social conditions. The weakness of the existing democracies lies in the circumstance that they inconsistently assert an extreme pessimism in the economic sphere, and an extreme optimism in the ethical.

The book will be welcomed by all who stand aloof from parties and schools, and are not blind worshippers of the so-called Spirit of the Age.

*Max Stirner und Friedrich Nietzsche, Erscheinungen des modernen Geistes und des Wesen des Menschen.* Von ROBERT SCHELLWIEN. Leipzig: Verlag von C. E. M. Pfeffer, 1892. Pp. 117.

This pamphlet is a vigorous protest against the naturalism and atomistic individualism of the age. Max Stirner and F. Nietzsche are selected for special examination because they exhibit this tendency in the most conspicuous and unrestricted way. Both proclaim the self-realisation of the individual to be the sole good and sole reality. Truth and right inasmuch as they impose restraint on the individual are regarded by them as mere chimeras. Now the author, while admitting that such views are absurd, maintains that they are the logical expression of the stream of tendency of our time. In Baconian language they are *Instances Freed and Predominant* of the general drift of thought. A most important manifestation of this prevailing tendency is the pretension of natural science to afford an ultimate and adequate account of reality. Nearly two-thirds of Mr. Schellwien's work is occupied by a trenchant criticism of the common naturalistic assumptions. The arguments which he urges are in the main Hegelian, and the mode in which they are treated reminds us of Green and Caird. It is shown that knowledge and the pursuit of moral ideals are impossible to an individual who is merely an individual. They are possible only through the self-realisation in the individual of the one identical creative activity in and through which all things are. Unlike the English Neo-Hegelian, Mr. Schellwien habitually names this absolute activity *will* not *thought*. But, so far as the present book is concerned, this difference does not appear to be much more than verbal.

*Il Vero.* Vol. v. of the *Opere Filosofiche* di ROBERTO ARDIGO. Padova: Angeli Draghi, 1891. Pp. 520.

Starting from an old controversy, which he reprints *in toto*, with Prof. Ferri, as to the purpose and future of metaphysics, Signor Ardigo proceeds to expound the nature of truth (*il Vero*) as he understands it, and to confute the more ordinary views, as, *e.g.*, that truth consists in correspondence to facts. We have, he holds, immediate evidence in observation of the *reality* of external objects—light, heat, &c.—and similarly immediate evidence of the *truth* of states of consciousness. As states of consciousness are primarily 'sensations,' and in their final

analysis 'elementary sensations'—corresponding to physical 'atoms'—truth is identical with sensations, and ultimately with 'elementary sensations'. States of consciousness have existence *per se*, therefore the old philosophers were so far right in postulating an existence *per se* for truth, the corrective supplied by modern science consisting not in the denial of existence *per se*, but in making it 'phenomenal' only. The inquiry into truth becomes thus an inquiry into consciousness, and into the association of sensations and of ideas, or reproduced sensations. In common with other anti-metaphysicians, Signor Ardigo feels no difficulty in combining this reduction of all consciousness to sensations with a materialistic view of sensations as depending wholly upon the organism, thus making the external world more real than the sensations through which alone we know it, and into which we must resolve it. It is needless to add that the work is not convincing, though, as a study of a point of view, it has its interest.

*Monismo e Dinamismo nella Filosofia*, per GIACINTO FONTANA. Milano: Fratelli Duncolan, 1892. Pp. 246.

This work is pervaded by the idea that it is of prime importance to maintain Metaphysics as an independent doctrine, apart that is from a *résumé* of the broadest generalisations of the Sciences, or an account of the last results of psychological reflexion. Positivism proper, as refusing to grapple with the conditions of Existence and Thought, is peremptorily ruled out of court; but every theory that admits the necessity for a Science of First Principles is allowed a hearing.

Throughout the history of philosophy there has been a constant oscillation in speculation in regard to the ultimate essence of Reality. The author's argument takes the form of an examination of the various phases of Monism and Pluralism exhibited in Ancient Greece, the Middle Ages, the Modern Period from Descartes and Spinoza to our own day. The sketch of important theories contained in the first two chapters (from the Eleatics to Leibnitz inclusive), although summary, is drawn with care and judgment. In regard to our English thinkers Signor Fontana quotes at some length from the criticism of Associationism undertaken some years ago by Luigi Ferri; and he shows himself also quite familiar with our most prominent writers. He is not much in sympathy with our insular productions, however, noting in them, with rare exceptions, a clear bias to phenomenism. Of our latest home thinker, styled oddly to English ears "the Philosopher of Derby," he writes that in his Evolutionism "the two qualitatively different and distinct processes, internal and external facts, are confounded; psychical energy is unified with sensible force: he gives us a succession of facts, and does not at all expound to us their synthesis or rather unification in the unique and indivisible fact of consciousness". Comparing Spencer's classification of the Sciences with Comte's, he allows that the former has indeed the advantage in putting in a claim for psychology, but "this is rather biology and physiology; he has an Ethic, but only as theory of pleasure and pain of the sentiments and instincts derived from the sympathy which binds men in association and in beneficence, but there is no moral law, nor liberty, nor the truly ethical". Even where there is a spiritualistic bias, as with Vacherot, there is no foundation, it is alleged, for a true Metaphysic. Vacherot, following in the steps of Cousin, essays to found Metaphysic on Psychology, or rather transforms psychology into ontology. The sufficiency of Psychology, however, in any form to serve as the portal to Metaphysics is challenged by our author in the following terms:

"Psychology is the study of interior facts; now how can these furnish us objective principles of universal validity, how can they afford us knowledge of those supreme truths which constitute Metaphysics properly so called?"

The psychological method being rejected, the author reviews the presentations of the chief German exponents of Monism, and pays, as is natural, considerable attention to the attempted improvements of recent Italian thinkers. But whatever ingenuity may be displayed by the several defenders of Monism, the author concludes that they one and all fail to give an account of the multiplicity in unity of the manifestation of the cosmos, and to leave room for a genuine principle of Conation. He accordingly turns to Pluralism, and discovers a closer approximation to the Truth in Leibnitz, Herbart, Lotze, and Rosmini. He does not deny that there are formidable difficulties in Pluralism, but it alone in some shape can save pure Metaphysics from destruction, for Monism with its identification of the One and All has a fatal tendency to decline into Materialism or Positivism, whereas Pluralism can be both just to naturalistic science, and yet preserve in their ideal purity, which is also the ground of reality, the inextinguishable concepts of Substance and Cause.

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RECEIVED also:—

- J. H. Bernard, *Kant's Kritik of Judgment*, translated, with Introduction and Notes, Macmillan, 1892.  
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 G. Dwelshauwers, *Les Principes de l'Idéalisme Scientifique*, Leipzig and Baden, C. Wild: Paris, G. Fischbacker, 1892, pp. 184.  
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 G. Gerber, *Das Ich als Grundlage unserer Weltanschauung*, Berlin, H. Heyfelder, 1893, pp. 429.  
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 F. Traub, *Die Sittliche Weltordnung*, Freiburg, J. C. B. Mohr, 1892, pp. 66.  
 F. Paulsen, *Einleitung in die Philosophie*, Berlin, W. Hertz, 1892, pp. xiii., 440.

## VIII.—FOREIGN PERIODICALS.

THE PHILOSOPHICAL REVIEW.—Vol i., No. 5. D. J. Hill—Psychogenesis. [The Mind-stuff or metakinesis theory is upheld. The Argument is cogent enough. But the meaning of the result is, as usual, left utterly in the vague.] A. Seth. [A lucid exposition of 'the necessity of epistemological realism.' F. H. Nicols—The Origin of Pleasure and Pain. [Considers the question from the biological side.] F. C. S. Schiller—Reality and 'Idealism'. [An interesting and thoughtful criticism of Mr. Ritchie's 'What is Reality?' which appeared in the May number of the review.] Reviews of Books, &c. No. 6. J. Dewey—Green's Theory of the Moral Motive. [It is urged that according to Green's view "the moral life is by constitution a self-contradiction" inasmuch as it is made to consist in the pursuit of an ideal unity, which is "for ever unrealisable, because it for ever negates the special activities through which alone it might, after all, realise itself".] W. James—Thought before Language. [Contains a most valuable account by an educated deaf-mute of his ways of thinking and feeling before he had learned the use of conventional language. The development of his Ethical ideas is especially interesting. Much might be said on the bearing of the evidence here supplied on the relation of thought and language—a topic which is treated by Prof. James with provoking vagueness.] H. R. Marshall—Pleasure-Pain and Sensation. [A thoroughly searching and effective criticism of the theory that pleasures and pains may be regarded as special kinds of sensation co-ordinate with other kinds, such as the sensations of colour and sound. The papers on the subject by Mr. Nicols in immediately precedent numbers of the *Philosophical Review* are especially referred to.]

AMERICAN JOURNAL OF PSYCHOLOGY.—Vol. iv., No. 4. H. H. Donaldson—The Extent of the Visual Area of the Cortex in Man, as deduced from the Study of Laura Bridgman's Brain. F. B. Dressler—Some Influences which affect the Rapidity of Voluntary Movements. J. R. Angell and A. H. Pierce—Experimental Research upon the Phenomena of Attention. [Important. "The essential question is whether we can interpret as simultaneous two or more disparate simultaneous sensations, and if not, how to explain our errors." Wundt's general method is followed with improved apparatus, by which the distracting noise of Wundt's clockwork is avoided, uniformity of motion in the rotating pointer is secured, and a momentary click is substituted for the relatively prolonged bell-tone. In explaining negative and positive errors stress is laid on the oscillation of Attention between the visual and auditory images. But the authors refuse to admit the legitimacy of any one simple principle of explanation, because of the great complexity of the conditions involved.] A. Kirschmann—Some Effects of Contrast. B. I. Gilman—Report on an Experimental Test of Musical Expressiveness. [A number of listeners were called on to write down, each independently, an account of the impressions produced and the ideas suggested by a selection of musical fragments. The results are highly interesting, and show remarkable agreement blended with remarkable diversity.]

THE INTERNATIONAL JOURNAL OF ETHICS—which has always been disposed to give a wide interpretation to the term "Ethics," regarded as defining a subject of discussion—opens with a long article on "The National Traits of the Germans as seen in their Religion," by Prof. Pfeiderer; and also contains a paper on "International Quarrels and their Settlement" by Dr. Leonard H. West, and a lecture by Mr. D. G. Ritchie on "1792—Year I." A more strictly ethical topic is the relations of "Philanthropy and Morality": under which title Father Huntington offers a vigorous, sweeping, semi-instructed diatribe against the operations of current philanthropy, which, in his view, are inevitably doomed to be laboriously futile and demoralising, so long as philanthropy will not "acknowledge the fundamental iniquity" of private property in land. The last article is a defence of "Utilitarianism" by Mr. A. L. Hodder. It is ably written throughout, and shows here and there some freshness in the treatment of trite topics: but the writer's standpoint is almost pure Benthamism, and his arguments are hardly likely to convince any one who has found Bentham unconvincing.

JOURNAL OF MORPHOLOGY.—Vol. vi., Nos. 1 and 2. Howard Ayers—A contribution to the Morphology of the vertebrate Ear, with a reconsideration of its functions. [In the course of this elaborate monograph the author deals with the functions of the ampullar sense-organs and their connected canals. He arrives at the following conclusions. (1.) Different in degree of modification from the line of cochlear organs as these organs are, there is no reason to posit a different *kind* of function for them. (2.) Perfect equilibration is possible among the vertebrates without an internal ear. Cf. *Amphioxus*, the *frog* (Boettcher), *curp* (Tomaszewicz), and *shark* (Steiner). (3.) In low vertebrates, there are surface canals in all the three space-planes, and in planes oblique to these; and these canals are more affected by bodily movements, and more subject to external sensory impressions than the ear canals can be: so that the animals would not need the latter for the static sense. Yet just these animals have their ear canals best developed. (4.) The canals are vestiges. Their only function is the inherited one of mechanical protection of the sense-organs. (5.) Bodily equilibration is the product of the activities of the whole nervous system, acting over the whole periphery of the body. Cf. the nasal rays of *Condylura cristata*.]

REVUE PHILOSOPHIQUE.—17<sup>me</sup> Année, No. 8. Rosenbach—Etude critique sur le mysticisme moderne. [An attack, too indiscriminate and prejudiced to be effective, upon the "psychical" experiments and inquiries of the Society for Psychical Research, Prof. Ch. Richet and others.] Fouillée—Le Développement de la Volonté. (Premier article.) [(I.) The primordial element in the will is "spontaneous appetite, whereby, a pleasure being given, the being reacts to retain it, and, a pain being given, to escape it". This is independent of the idea of the end, which comes only when opposition is met with, when consciousness becomes 'bilinear' and has to select among two or more possible directions. (II.) While the will considered in itself does not admit of classification, being the 'identical tendency' to the greatest well-being, to the conservation and expansion of life, its *impulsions* or reactions upon the environment may be classified according to the objects which excite them. We have—(1) Impulsions aroused by pure sensations, which constitute appetite proper; (2) Impulsions aroused by percepts with their associated memories—"This class of impulsions is the basis of all the instincts"; (3) Impulsions aroused by judgments and trains of reasoning, culminating in *ideas*, which are then the conscious reasons for



action. "The rational will is that which . . . conceives a series of causes and effects as at the same time a series of *means* to a certain *end*." *The theories* which explain the will (*a*) as the tendency of an image to realise itself, or (*b*) as determination by judgments and ideas, are both inadequate. "The will is not determination by any judgment; it is determination by a judgment which pronounces that the realisation of such an end depends on *our own causality*. It is not merely the tendency of any idea to its own realisation, it is *the tendency of the idea of personal activity to its own realisation*." Desire and volition are not to be absolutely opposed nor completely confounded. Desire is of the end, volition is characterised by an extension of desire also to the means. (IV.) The 'moments' of volition are reflexion, deliberation, judgment of choice or decision. The two first are essential but may be reduced to a minimum. The judgment has always a practical side, is accompanied by movements, impulses, and some emotion. The action of the judgment does not imply freedom from determinism. There is constant action and reaction between the judgment and the 'personal factors'. (V.) The general result of the analysis is that no single motive, and no combination of conscious motives, contains the explanation of the subsequent volition. The volition is the synthesis of all the psychical and physical elements, conscious, sub-conscious, and unconscious. Only a complete analysis of all the elements could answer the question whether or no there is residuum=free choice. The nature of this synthesis is inadequately represented by the notion of mechanism. The notion of determinism, on the contrary, is not inadequate, but requires an interpretation at once more complex and more elastic.] A. Naville — La beauté organique: Etude d'analyse esthétique. Travaux du Laboratoire de Psychologie Physiologique. [Observations and experiments made by MM. Binet and Henneguy upon the calculator J. Inaudi, supplemented for the purpose of comparison by notes (by MM. Binet et Philippe) upon several professional calculators. The most striking fact elicited about the calculator Inaudi is that he is an 'auditive' and not a 'visual' as is more usually the case. No. 9. J. M. Guardia—La Personnalité dans les rêves. [A collection of notes on the part played in dreams by the several senses, and by movement, on the influence of the personality of the dreamer, of the social environments, &c. Revue Générale. M. Vernes—Histoire et Philosophie Religieuses. [An interesting survey of recent literature on the history of religious and Biblical criticisms.] No. 10. Dr. Brazier—Du trouble des Facultés musicales dans l'Aphasie. [(I.) Gives a brief survey of the progress made in the study of aphasia, in particular of speech affections; (II.) resumes briefly the somewhat scanty results as yet attained in the study of 'amusia,' or musical aphasia; (III.) analyses the elements in musical representation (part played by auditive, motor, and visual images respectively); (IV.) quotes cases in detail; (V.) concludes that it is not yet possible to decide if the centres for speech and for music coincide absolutely, in which case the nervous elements might remain efficient for the one order of representations even after losing their efficiency for the other, or if on the contrary the centres are distinct though contiguous. The following positive results are however warranted by the facts; that in musical as in lingual representation three orders of images may be distinguished (auditive, visual, motor); that, in respect of forms, we may distinguish *total*, or at any rate complex, and simple musical aphasia, while the latter may be again divided into receptive or centripetal (tone-deafness, tone-blindness) and transmissive, expressive or centrifugal (loss of motor-image and consequent inability to play or sing); and finally that amusia, though it may appear as a corollary of

(speech) aphasia, is also an independent species.] A. Fouillée—Le Développement de la Volonté (fin) La Volonté Libre. [M. Fouillée concludes his study of volition with the well-worn theme of free-will. Starting with an analysis (I.) of the *idea* of freedom, he finds it, as held by the practical man, to imply not indeterminism but self-determination, that is determination or causation by the conscious, reflective self (not by the character which is only the "accumulation of necessities for the most part organic"), acting under the idea of freedom as an end. The genesis (II.) of this idea is in the consciousness or feeling of personal power arising from the real activity of desire, from the intellectual activity of deliberation, and from the personal force of resolution, combined with the impossibility of finding complete 'objective' causality for actions. It is this ignorance of objective causes which when unbalanced by knowledge of subjective power leads to the inadmissible notion of indeterminism. After criticising (III.) some other theories, those of James, Reouvier, and Lotze among them, M. Fouillée passes (IV.) to the consideration of the validity of the idea of freedom as he understands it, and of how far it is consistent with scientific determinism. He concludes that the more an individual acts under the idea of freedom, with its three elements, power, independence, and spontaneity, the more he attains to a 'relative' independence of 'objective' influences. Freedom is 'subjectivity' *par excellence*.] No. 11. Novembre. L. Marillier—La Psychologie de W. James. [The first part of an appreciative 'critical notice' of Prof. James' longer and shorter psychologies.] E. de Roberty—De l'unité de la science: les grandes synthèses du savoir. [An attempt to get rid in theory, and in the classification of the sciences, of the dualism between the 'self' and the 'not-self,' between mind and matter, by exhibiting the mentality or ideality of time and space, the two forms of existence.] Th. Ribot—Sur les diverses formes du caractère. [An interesting attempt at a new classification of individualities or characters, based not upon temperaments or predominating tone of feeling, but upon the "two fundamental manifestations" of psychical life, *feeling* (sentir) and action. (I.) The essential marks of character being unity and stability, a constant and continued mode of acting and re-acting, two classes of persons, the excessively plastic and the excessively changeable, "les amorphes et les instables," are at once excluded. (II.) The three main classes, based on the distinction between feeling and acting, are (1) the sensitive, (2) the active, (3) the apathetic. (III.) These three are in their turn subdivided—the sensitive class into (a) the diffident ('les humbles'), (b) the contemplative, (c) the emotional; the active class into the moderately active and the very active; the apathetic class into the purely apathetic and the apathetic-intellectual. (IV.) In addition to these simple types, complex or mixed types must be recognised, the sensitive-active, apathetic-active, apathetic-sensitive, and perhaps the temperate or equally balanced characters.] Variétés.—Congrès international de psychologie expérimentale de Londres, par L. Marillier. Sur un nouvel appareil destiné à l'étude expérimentale des sensations kinesthétiques, par Pierre Janet. Analyses et Comptes Rendues, &c.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNESORGANE.—Bd. iv., Heft 1, 2. F. Schumann—Ueber die Schätzung kleiner Zeitgrößen. [(1.) *The psychological basis of the comparison of small time-magnitudes.* The mental content which determines our comparison of such time-magnitudes is made up of secondary impressions of expectation-strain (strain-sensations of muscular contraction or strain-feelings) and surprise. Our sensible discrimination is a function of the adaptation

of our sensory attention. (Experiments with syllables and lines pasted on a rotating drum. Discussion of the psycho-physics of attention.) (2.) *Survey of the results of earlier investigations.* Mach and Vierordt; the articles in the *Philosophische Studien*; Münsterberg; minor contributions (Exner, Buccola, Hall, Jastrow, Stevens, Nichols, F. Martius, Paneth). Considering that we are only just beginning to understand the "time-sense," and that the present article cannot be regarded as in any way final, the criticism contained in these paragraphs is too sweeping. (3.) *New experiments.* Methods of right and wrong cases and of reproduction. In the former case, the value of *D* has a great influence on the magnitude of the sens. disc. As regards the second, it is concluded that the mean error cannot be considered as a measure of the sens. disc. A final section discusses some experimental facts, which go to confirm the author's theory.] C. Stumpf—Zum Begriff der Lokalzeichen. [The author points out the fluctuations in Lotze's use of the term "local-sign".] R. Hilbert—Zur Kenntniss des successiven Kontrastes. [Not in every case is the after-image of a coloured stimulus complimentary to the stimulus-colour.] Litteraturbericht. [G. E. Müller on Waller's "The sense of effort; an objective study".]

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE.—Bd. xvi., Heft 4. R. Wlassak—Die statischen Functionen des Ohrlabrynthes und ihre Beziehungen zu den Raummepfindungen. Erster Artikel. [The symmetrical innervation of antagonistic muscles on opposite sides of the body depends on the semicircular canals. The recent researches by Verworn, Ewald, Kreidl and Breuer are taken into account.] H. Cornelius—Ueber Verschmelzung und Analyse. Erster Artikel. [An important paper. It is maintained as against Stumpf that analysis of musical tones takes place through a series of successive acts of discrimination, and not in one simultaneous act. But the author agrees with Stumpf that the sensations exist in consciousness before they are distinguished. He insists however that in becoming distinguished they become altered *quâ* sensations.] J. Zahlfleisch—Die Wichtigkeit der Reproductionsgefühle für die Entwicklung und Bildung des Menschen. [According to the writer, when we reason in the form of an enthymeme the place of the suppressed premise is supplied by a *Reproductionsgefühl*. Using the term in this very wide application, he has no difficulty in showing that such feelings are of the greatest importance in every department of our mental life.] Anzeigen, &c.

PHILOSOPHISCHE MONATSHEFTE.—Bd. xxviii., Heft 9, 10. M. Offner—Ueber die Grundformen der Vorstellungsverbindung. [Makes out a good case against Münsterberg's mode of resolving successive into simultaneous association. The author himself makes successive association depend on the subliminal persistence of excitations.] Th. Lipps—Der Begriff der Verschmelzung in Stumpf's Tonpsychologie. [An excellent article. By a searching analysis it is shown that Stumpf's fusion really belongs to the region of unconscious mental facts. The meaning and the justification of the conception of unconscious mental process in general are well brought out. Other points also in the work of Stumpf are criticised.] F. Tönnies—Werke zur Philosophie der Geschichte und des socialen Lebens. [Notices J. S. Mackenzie's "Introduction to Social Philosophy," J. H. Ferguson's "Philosophy of Civilisation," J. W. A. Macdonald's "Humanism".] Bd. xxix., Heft 1, 2. K. Lasswitz—Die moderne Energetik in ihrer Bedeutung für die Erkenntnisskritik. [Discusses the specific form assumed by the categories of Substance, Causality and Reciprocity in the modern theory of energy. The conserva-

tion of energy is brought under the Substance category.] F. Staudinger—Die Sittliche Frage eine sociale Frage. E. V. Hartmann—Religionsphilosophische Thesen. Recensionen, &c.<sup>1</sup>

ZEITSCHRIFT FÜR PHILOSOPHIE UND PHILOSOPHISCHE KRITIK.—Bd. ci., Heft 1. Otto Liebmann—Psychologische Aphorismen. [Contains many interesting and suggestive remarks on leading psychological problems.] E. von Hartmann—Unterhalb und oberhalb von gut und böse. [The moral consciousness is the apprehension of the relation of the Supramoral or Divine to the Inframoral or Natural.] F. Jodl—Jahresbericht über Erscheinungen der Anglo-Amerikanischer Litteratur.

PHILOSOPHISCHES JAHRBUCH.—Bd. v., Heft 3. P. Schanz—Religion und Entwicklungstheorie. [Religious belief is capable of development *a fide ad intellectum*. But the development must not be innovation. Nove, non nova. This article, which is, in part, historical, is likely to interest the philosophical student of theology.] J. Wolff—Lotze's Metaphysik. [The concluding portion of a careful and acute criticism from the standpoint of scholastic realism.] Cl. Baumeister—Die neueste Phase des Schopenhauerianismus. [A criticism of Feldegg's attempt to construct a Philosophy in which the Absolute is identified with Feeling.] P. A. Linsmeier, S.J.—Die speculativen Grundlagen der optischen Wellentheorie.

REVISTA ITALIANA DI FILOSOFIA.—Anno vii., Vol. ii. Settembre e Ottobre. De Sarlo—Gli Esperimenti dell' Ipnatismo sulle alterazioni della coscienza. [Taking M. Binet's recent work, 'Les Altérations de la Personnalité,' as his text, il dottor De Sarlo accepts, without question, the facts given, but disputes the interpretation most generally in vogue with hypnotists. If the self were, as is supposed, the result of an aggregation or co-ordination of elements, a break in the co-ordination would destroy the self rather than yield two or several selves. Rather must we conceive a central unifying activity, and the co-ordination as its effect. The several selves or personalities will then figure as the different functions, manifestations, acts, of a single and identical *force*. The separation into different personalities, which remains the chief problem, may be explained on the analogy of the organic functions, which, though reflex and automatic, remain under the control of a central consciousness, and, though ordinarily unconscious, any one of them can become conscious by concentration upon it of the psychical energy (attention or apperception), because it is then embraced in a single act.] L. Ambrosi—Sulla natura dell' Inconscio. Alcune considerazioni storico-critiche. [Traces the notion of the 'unconscious' from Leibnitz to the present day, and concludes that, while we cannot, with Schopenhauer, suppose an unconscious *will*, because the will is conditioned by consciousness, and the unconscious must be something quite 'outside' consciousness, it is yet possible from the facts of consciousness to infer the existence of the unconscious as distinct from the material, as the psychical side of the physical world. As thus inferred, the *unconscious* is much more than the sub-conscious, it is an "individual, permanent, continuous, and unifying energy," the "necessary condition of consciousness," the "psychicum continuum," occasionally, and at intervals, illuminated by consciousness. With this conception, Prof. Ambrosi, in his turn, attempts an

<sup>1</sup> *Apropos* of the notice in the last No. of MIND, of Mr. A. Voigt's article, "Was ist Logik," we are requested by the author to state that he does not identify "Philosophical Logic" with Syllogistik.

explanation of 'double personalities'.] R. Bobba—Di alcuni Commentatori italiani di Platone. L. Marino—Materialismo e monismo. [The genesis of the intellectual and moral life and functions cannot be accounted for by materialism, but is, on the contrary, conceivable on the supposition of 'monistic and causal evolution'. Physical and psychical phenomena must be considered as alike manifestations of an eternal and indestructible cosmic energy, the difference being that the physical phenomenon is 'extrinsic' activity, and the psychical is 'interior' activity.] Novembre e Dic. F. Tocco—La Psicologia della suggestione. [A study of suggestion in connexion especially with hypnotism, taking as text the 'Psychologie der Suggestion von Dr. Hans Schmidkunz'. Prof. Tocco does not follow Dr. Schmidkunz in accepting as proven suggestion from a distance—without intervention of the senses—thought reading, animal magnetism, &c., nor in the metaphysical conclusions deduced, but maintains throughout a sober and critical standpoint. (I.) The several degrees or kinds of suggestion, whether objective, personal, real or verbal, have this as common and distinguishing characteristic, that the idea of a fact is insinuated into the mind and gains in force, *automatically*, until it changes into the actual fact. (II.) In hypnotism there are two factors, the psychical and the physiological. The first may be practically reduced to suggestion, but the second must not be overlooked. Hypnotic states have much in common with ordinary sleep, and somnambulism forms a connecting link. The abnormal phenomena are hyperexcitability of the motor nerves, hyperæsthesia of certain organs, increase of muscular power, hypermnèsia or the faculty of recalling things utterly forgotten in normal state, and even these phenomena are met with in other than hypnotic states. (III., IV.) The best explanation of hypnotic phenomena is afforded by the principle that ideas tend to persist and to convert themselves into movements.] A. Nagz—Lo sviluppo della personalità. [Another paper dealing with hypnotic problems.]

## IX.—NOTES AND CORRESPONDENCE.

### THE INNERVATIONSEMPFINDUNG IN WUNDT'S PSYCHOLOGY.

I HAVE had occasion, in notices of several recent books, to call attention to what seemed to be a misunderstanding of Wundt's present position as regards the "feeling of effort". It may not be amiss, therefore, to put together Wundt's most recent utterances on the point; since the question of the existence of the sensation of innervation proper, more or less fallen out of discussion in psychology, has lately been brought into prominence again on the neurological side.

In the *Phys. Psych.* (3<sup>te</sup> Aufl., 1887, i. 403) the sensation of movement is said to be probably the resultant of the fusion of three different factors: pressure-sensations (from the skin and subcutaneous parts), muscular (contraction) sensations and central innervation-sensations. Of these sensational components probably only two are in origin qualitatively distinguishable: the sensations of pressure and of contraction; while the sensations of innervation are nothing else than centrally excited sensations of movement—that is to say, the sensation of movement is made up of a fusion of skin-sensations and muscular-sensations with the reproductions of such fusions, previously experienced; the innervation-sensation is the reproduction of a fusion of pressure- and contraction-sensations.

On p. 406 the same position is represented in more detail. It is stated as probable that "the sensations of innervation stand to the muscular [contraction] sensations in the relation in which in other sense-departments the central excitations, aroused by memory-images, stand to the sensations which are caused by direct external stimulation affecting the whole of the special sensory apparatus". The only difference is this difference in the direction of stimulation: in the one case it is centripetal, in the other centrifugal.

It is in these passages that the nature of the "sensation of innervation" is discussed; and in their light must such phrases as "sensations which accompany the central act of volition" (i. 42) be interpreted. (*Cf.*, e.g., 32, 33.)

Still more decisive is the statement in the essay, "Zur Lehre von den Gemüthsbewegungen" (*Phil. Studien*, 1891, vi. pp. 335 ff.). It is here given as Münsterberg's view (pp. 387, 388) that "the so-called sensations of innervation, which can be observed in cases where no actual movement takes place, are memory-images of sensations of movement previously experienced". Prof. Wundt writes: "This view of the sensations of innervation I regard as correct: I believe it to be the only one possible, in face of the recently published discussions of the subject. But it is a view which is by no means new. I have myself developed it at length in the third edition of my *Phys. Psych.* . . ."

Finally, in the *Vorlesungen über d. Menschen u. Thier-Leeb* (2<sup>te</sup> Aufl., 1892, p. 147) we find the sentence: "The sensations of muscular effort which are the invariable concomitants of acts of volition may be regarded as reproduced muscular [contraction] sensations . . .". In this passage the expression "sensation of innervation" does not occur. It may, however, very well be retained for the memorial representations of the particular sensations or sensation-fusions in question, which have for consciousness such a peculiar value. That one should talk of a memory-image as a sensation is in accordance with Wundtian terminology in general.

I hope that before this array of evidence the sentences beginning "Bain, Wundt and others . . ." will gradually disappear.

E. B. TITCHENER.

*To the Editor of MIND.*

DEAR SIR,—Mr. Ward, in his over-generous notice of my briefer Psychology in your October number, says something which calls for a word of correction from me, for it concerns others besides myself. Quoting my sentence that mediumistic phenomena "are a field which the *soi-disant* scientist usually refuses to explore," he names the Society for Psychical Research, and remarks that it must strike the impartial spectator as a little humorous that "these people" should not only have arrogated to themselves a title under which every psychological inquirer might be enrolled, but should "stigmatised as *soi-disant* scientists the great body of psychologists, who, in fact, think proper not to join their ranks". If there is anything humorous here, it would seem to be the ascription to all "these people" of an opinion which was foreign even to the mind of the solitary author of the sentence from which Mr. Ward so ingeniously distils it, for no mention of the "S. P. R." was made in my text. The point is, as Mr. Ward says, a trifle, but exactitude is meritorious; and I therefore beg to say that I have never heard one of "these people" brand any psychologist as a *soi-disant* scientist, or otherwise speak harshly of him for not joining the ranks of the society in question. The temper of the psychical researchers is, as a rule, more humble. As for myself (if I can remember what was in my mind when I wrote the sentence in point) the *soi-disant* scientists intended must have been such fine old crusted enemies of superstition as that eminent biologist who once said to me that if the facts of telepathy, &c., were true, the first duty which every honest man would owe to Science would be to deny them, and prevent them, if possible, from ever becoming known. I surely never dreamed, when I wrote the words "*soi-disant* scientist," of the numerous psychological inquirers who have not joined the "S. P. R."; and least of all of such a truly scientific psychologist as Mr. Ward himself.

I remain, very truly yours,

WILLIAM JAMES.

Florence, October 24, 1892.

I am sorry I have misunderstood Prof. James. That I did it without "ingenuity" a word or two will show. First I "named" the S. P. R., and it is true they are not named in the text. But they are mentioned in a note appended to the very sentence I quoted, and it is certain they occupy the field into which Prof. James hopes to draw his psychological readers. Next this is "the field which the *soi-disant* scientist usually refuses to explore". Here somebody is blamed for not doing something which it is assumed he ought to do. Who is it? Do physicians reproach philologists for ignoring the comma-bacillus? If *psychical* research is neglected, do we expect to find biologists called to task and not rather psychologists: and that when the censor is a psychologist writing about psychology? Lastly, if it was natural to suppose that psychologists were intended, was there much straining in taking "usually" to imply "the great body of psychologists," when it is notorious that the great body of psychologists are not, in fact, "psychical researchers"?

JAMES WARD.

Cambridge, Dec. 11, 1892.